The goals of British universities

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THE GOALS OF BRITISH UNIVERSITIES

submitted by

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A SUMMARY OF THE THESIS

The aim of the thesis is to assist readers to decide what the goals of a British university should be.

Part One is intended to provide the philosophical and historical frame of reference which is needed for an informed consideration of university goals.

Part Two reports the opinions on goals which have been expressed by the universities themselves and by a variety of groups which may be regarded as stakeholders in the system. A catalogue of possible goals for British universities is provided, and six important areas of controversy are identified.

Part Three describes the steps which were taken to measure the attitudes of certain stakeholder groups towards the six controversial issues; the main focus of interest is stakeholder groups in the University of Bath. The results obtained from the administration of a specially constructed questionnaire are reported, and the validity and reliability of the instrument are estimated.

Part Four is concerned with practical issues. The implications of differing attitudes towards goals among stakeholders of the University of Bath are assessed. The environment of British universities in the mid 1980s is reviewed, and the principal alternative procedures for clarifying goals at an organisational level are summarised. A method of inquiry is provided in order to enable interested readers to identify the goals preferred in the environment, and the operative goals of a particular university, at any given time. This method of inquiry is used to analyse the explicit and implicit goals of the University of Bath. Finally, the conclusions and recommendations which have been drawn from the thesis as a whole are stated.

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A large number of individuals consented to be interviewed in connection with this research: the author records his thanks for their co-operation. A full list of those interviewed is provided as Appendix One.

Finally, the author wishes to thank Mrs. Monida Harris for typing the thesis with meticulous care.

ABBREVIATIONS

Terms which are frequently abbreviated in discussions of British higher education, such as University GrantsCommittee (UGC) are written in full when used for the first time in the main body of the text, with the abbreviated form in brackets, as in this sentence. A key to the abbreviations used in the text is given below:

AUT = Association of University Teachers

CAT = College of Advanced Technology

CBI = Confederation of British Industry

CVCP = Committee of Vice-Chancellors and Principals

DES = Department of Education and Science

ETS = Educational Testing Service

IGI = Institutional Goals Inventory

LTPC = Long-term Planning Committee (University of Bath)

MBO = Management by Objectives

MPs = Members of Parliament

NAB = National Advisory Board

PI = Performance Indicator(s)

PPBS = Planning, Programming and Budgeting Systems

SDP = Social Democratic Party

SPSS = Statistical Package for the Social Sciences

UGC = University Grants Committee

VCAC = Vice-Chancellor's Advisory Committee (University of Bath)

Readers are asked to note that the words 'he' or 'his' etc. are used throughout the thesis in preference to 'he/she' or 'his/her'. This convention is adopted for reasons for brevity and is not intended to imply that lecturers, students etc. are always male.

References to 'the Government' are normally references to the Conservative Government elected in 1983, which was in power when this thesis was written. Where exceptions to this rule occur the context will make it clear which government is concerned.

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INTRODUCTION

The aim of this thesis is to assist readers to decide what the goals of a British university should be. The thesis is not prescriptive: it does not argue that certain goals should be adopted and others rejected. The intention rather is to provide the reader with the resources to form his own views.

The choice of subject-matter was influenced by a number of considerations, of which the following were the most important:

(i) British universities are autonomous bodies having a profound influence on the system of education as a whole;

(ii) organisation theorists argue that the selection of clearly defined goals is a key factor in the health of any organisation;

(iii) prima facie, British universities have very ill defined goals;

(iv) comparatively little research into the goals of British universities had previously been carried out.

All the above points are discussed more fully in the body of the text. The researcher was also influenced by the belief that a PhD thesis should not only be an original contribution to knowledge but should also fulfil a useful purpose.

The methodology adopted at each stage of the research is described in the appropriate chapter. Essentially, the methods used were as follows:

(i) the relevant published information was located and analysed;

(ii) additional information was obtained from members of relevant groups and organisations, either through interviews or by correspondence;

(iii) a questionnaire on attitudes to various university goals was constructed and administered; and

(iv) a method of analysing the operative goals of a university was devised and tested.

Where it was desirable to investigate the goals of one specific university, both to test the methods of inquiry and to obtain information which was valuable in itself, the University of Bath was used as the focus of the research.

The thesis is divided into four parts. Part One is intended to provide the philosophical and historical frame of reference which is needed for an informed consideration of university goals. In the first chapter, the methodology adopted for Part One is described, and terms such as goals, aims and objectives are defined. In Chapter Two, the philosophy of education, and the philosophy of higher education in particular, are reviewed in order to extract ideas about what the goals of universities should be: two contrasting ideas are identified. The third chapter examines three further topics to see what light they shed on the purposes of universities. The topics are: organisation theory, the concept of universities as an investment, and manpower-planning techniques. Finally in Part One, the history of British universities is reviewed, in Chapter Four. The aims of the historical review are (i) to identify the goals which were envisaged for British universities by their founders, and (ii) to identify the major events which have influenced the universities' choice of goals subsequently. This chapter, like the rest of the thesis, takes into account developments up to the end of September 1985.

Part Two focuses on the current situation in relation to university goals. The main aims of Part Two are (i) to determine the extent to which the stakeholder groups in the British university system have formally considered what the goals of universities should be, and (ii) to

identify areas of actual or potential disagreement on goals, both within and between groups. The methodology adopted to obtain this information is described in Chapter Five. Chapter Six reviews the American approach to the whole issue of university goals, the aim being to identify good practice in this context; the important American research into the measurement of opinions on goals is summarised. Chapter Seven defines the British approach to university goals. Details are given of British universities' responses to a request for a copy of any formal statement of purpose which they had issued; the few previous attempts to measure British opinions on the goals of higher education are also described. Chapter Eight sets out the results of the research which was undertaken to determine the views of the principal British stakeholder groups on what the goals of universities should be. Following the review of philosophy, history, American ideas, stakeholder opinions, etc., it was then possible to assemble a classified list of goals, both actual and potential. This catalogue of goals is set out in Chapter Nine; it provides a means by which individuals or groups can familiarise themselves with the range of possible goals and can select those which they believe should be given the greatest emphasis. Chapter Ten once again builds on the material contained in earlier chapters. Six controversial aspects of university activity are discussed in order to clarify the underlying issues. These six areas of controversy were selected because they were judged to be the most important issues in the mid 1980s; arguments about them have persisted over many decades, and in a time of shrinking resources the debate is likely to become increasingly acute.

Part Three describes the steps which were taken to measure the attitudes of certain stakeholder groups towards the six issues which were identified at the end of Part Two. The aim was to establish whether there were important differences between the attitudes of the specified

groups. Chapter Eleven describes how a questionnaire was designed and administered to eight groups, with the primary aim of obtaining information about attitudes in relation to the University of Bath. Chapter Twelve gives details of the results which were obtained from this survey of attitudes. The findings are presented graphically and the validity and reliability of the instrument are estimated.

Part Four is concerned with practical issues; the University of Bath is once again used for purposes of illustration. Chapter Thirteen examines the academic and political implications of the findings which were reported in Chapter Twelve; the implications of the survey are assessed in the light of information obtained from interviews and from other sources. Chapter Fourteen reviews the environment of British universities as it exists in the summer of 1985; publications such as the Jarratt Report and the Green Paper on higher education are discussed, and key factors which are likely to influence a university's choice of goals in the late 1980s are identified. Chapter Fifteen summarises a number of ways in which the goals of universities can be clarified at an organisational level: through decentralised planning, through a centralised system, or through a compromise btween the two. In Chapter Sixteen, the reader is provided with a method of inquiry. By using this method the reader can investigate (i) the attitudes towards University goals which exist in the system's environment at any given time, and (ii) the goals which are actually being pursued within a particular university. After examining the data which this method of inquiry produces, a reader who has absorbed the material contained in earlier parts of the thesis will be in a position to assess whether or not, in his judgement, the goals preferred at a particular time and in a particular university are ones which he can support. Chapter Seventeen consists of an analysis of the goals of the University of Bath, obtained by means of the method of

inquiry mentioned above. As in the case of the questionnaire, this exercise was undertaken both to test the efficacy of the method and to obtain information which would be of value in itself. The information provided by the inquiry is used to draw up a draft mission statement for the University of Bath; a draft statement of the goals of one particular School, and of one degree course within that School, are also provided. Finally in Part Four, the conclusions and recommendations which have been drawn from the thesis as a whole are stated.

A number of appendices are followed by the usual references section, which gives details of the books, periodicals and other material referred to in the notes at the end of each chapter; there is also a supplementary bibliography.

PART ONE

CHAPTER ONE: THE METHODOLOGY OF PART ONE AND DEFINITIONS OF TERMS

The literature search

This chapter describes the methodology adopted for Part One of the thesis and provides working definitions of terms which occur frequently in the text.

The methodology adopted for Part One was to review the available literature and to contact a number of researchers who were known to be interested in this field. In 1981, a literature search was carried out by checking the appropriate headings in all the sources of information listed below for the years from 1970 onwards:

1. British National Bibliography
2. American Book Publishing Record
3. Bowker Subject Guide
4. British Education Index
5. Education Index
6. Register of Educational Research in the UK
7. British Educational Theses Index 1950-1980
8. ASLIB Index to Theses
9. Society for Research into Higher Education Abstracts
10. ERIC data base (by computer)
11. Dissertation Abstracts International data base (by computer)
12. Jossey-Bass International Encyclopaedia of Higher Education

These sources were also checked at regular intervals after 1981 until the thesis was complete.

The literature search located a considerable volume of American work and a much smaller amount of material relating to British

universities.

The search also produced the names of a small number of academic staff in British universities (seven) who were broadly interested in the relevant area of research. Letters were sent to all such academics asking if they could suggest any books or articles which were worth reading. In addition, letters were sent to 34 members of the American Association for Institutional Research who had indicated in the Association's handbook that they were actively researching in the field of goals and objectives.

Definitions of terms

Working definitions of a number of terms which will be used frequently are set out below. It should be noted that the definitions offered conform to a broad clustering of usage, (1) but there are inevitably a number of respectable authorities whose opinions differ. (2)

(i) Mission

The word 'mission' is the broadest in meaning of the various terms used to denote purpose; it is often found in an American context. The mission of a university is its basic reason for existence, the reason or reasons why society supports it financially and morally. In the words of Hutton, mission is 'an overall concept which attempts to catch the essence of the enterprise and to characterize it.' (3) For example, it has been usefully said that the three basic missions of universities are to transmit, to extend, and to apply knowledge; (4) the activities associated with these missions are teaching, research and public service. Another example of a mission might be 'To meet the needs of a particular

locality for an educated citizenry, for trained personnel, and for community services.' (5)

Many American universities have published 'mission statements' which often encompass goals as well as mission. Only one British university has produced a mission statement (the University of Ulster) and most British universities can produce little in the way of formal statements of purpose. This point will be considered in detail in Chapter Seven.

(ii) Aim

The word 'aim' is one which occurs more often in British contexts than in American, as in the phrase 'aims and objectives'. The Department of Education and Science (DES) defines an aim as 'a general statement of intent.' (6) An aim is thus very similar to a mission. Statements of aims are often pious and exhortatory; (7) they almost invariably indicate the high value placed upon the stated activities.

(iii) Goal

The word 'goal' is an uncomfortable one for British readers: it has overtones of the soccer field. Nevertheless, it has valuable uses.

In educational terms a goal is an intermediate step in a hierarchy ranging from 'mission' on the one hand to 'objectives' on the other. Goals are more specific than missions, and they often include reference to a clientele, a process, and an outcome. (8)

Achieving a goal involves achieving a desired condition; (9) in a university the desired condition can be one pertaining to students, staff, or the institution itself. Goals are often considered as applying to the

university as a whole, (10) while objectives will usually differ from department to department. Examples of goal statements are: 'To create in students an ability to think critically'; and 'To provide students with direct experience of industry and commerce'. (11)

Goals can be either explicit, that is to say written down, or implicit, in the sense that they can be discerned in what the organisation actually does; however, as more than one commentator has noted, what an organisation says it is trying to do may be at variance with what it actually is doing. (12)

A catalogue of possible goals for British universities is provided in Chapter Nine.

(iv) Objective

Objectives are much more specific than goals. It is often suggested (13) that they should be measurable and verifiable, perhaps with a completion date. Just as an institution's goals should logically be consistent with its mission, so the objectives should be consistent with, and indeed derived from, the goals. They carry the implication that certain action will be taken to achieve the objective. An example of an objective is: 'To enable a student to make engineering drawings in accordance with BS308.'

More has been written about objectives than about any other term associated with the concept of purpose in education, particularly in the period since 1945. Tyler first introduced the idea that objectives should be defined in terms of specific behaviour, (14) and the term 'behavioural objective' denotes a statement of what the learner will be able to do after a particular course of instruction.

The interest in objectives which had been aroused by Tyler's work was intensified by three developments in the 1950s. (15) First, a large group of academics under the leadership of Bloom produced the now famous classification system called the Taxonomy of educational objectives; this is known colloquially as Bloom's taxonomy. A second development was the method of task analysis which was developed by psychologists employed by the United States Air Force. The third and most powerful influence was the programmed learning movement; the programme writer has little chance of producing an effective programme unless the desired end-result is clear to him at the outset.

Bloom's taxonomy became 'a prodigious success'. (16) The first part, covering the so-called cognitive domain and dealing with the acquisition of knowledge, was published in 1956. A second part, produced under the leadership of Krathwohl, appeared in 1964 and dealt with the affective domain (i.e. feelings and attitudes). Simpson's work on the psychomotor domain (1966) is held by De Landsheere (17) to have filled the gap left by the first two parts of Bloom's taxonomy.

It has been argued (18) that the enthusiasm with which Bloom's taxonomy was received indicates the existence of a deeply felt need to rationalise the process of education. The years since the publication of the taxonomy have shown, however, that the world of education does not readily lend itself to rational analysis and measurement. It is not easy to define, for example, what we mean when we say that we want a child to appreciate art; (19) nor is it easy to design a means of measuring the extent of that appreciation. It is not surprising, perhaps, that in recent years the concept of the behavioural objective has come under severe attack, (20) in the sense that the limitations of the approach have been systematically laid bare.

(v) University

Defining the term 'university', in a British context, is surprisingly difficult. If, for example, we define a university in financial terms, as an institution of higher education in receipt of Treasury grants through the University Grants Committee, that immediately excludes the Open University, which receives its funding direct from the DES; it also excludes the universities of Northern Ireland. (21) Perhaps the best definition of British universities is that they are institutions with the power to award their own degrees, and are pre-eminent in the field of research. (22)

The power to grant degrees is conferred on universities by Royal Charter or by Act of Parliament, and the granting of a Charter or Act for this purpose gives a university a distinct legal entity. Most charters grant a wide range of powers, (23) which means that universities have, in theory at any rate, a considerable degree of autonomy over financial and academic matters. This independent legal status, together with the emphasis on research, is what chiefly distinguishes British universities from the thirty polytechnics which have been set up since 1966. (More will be said about the emergence and role of the polytechnics in Chapter Four.) It should be noted, however, that the independence and autonomy of universities is not intended to lead to variations in academic standards: the practice of appointing external examiners is designed to ensure that all degrees are of equal academic merit.

It is also worth noting that there is a conceptual problem in relation to the term 'university', particularly when associated with a discussion of goals. There are those who argue (24) that to make such statements as 'The university believes that...' is to commit the sin of reification, i.e. to speak of a collection of individuals as if they were a single entity. A

university is an organisation, and while people can have goals, organisations, strictly speaking, cannot.

There is undeniably logic in this argument, and it is only right that the point should be made from time to time. In practice, however, most people understand very clearly that when we speak of 'the goals of the University of Newtown' we are in fact referring to the goals of that particular group of people who are in positions of influence within the organisation. For that reason no great attempt to avoid reification will be made in this thesis.

(vi) Higher education

'Higher education' is another phrase which is widely used but which proves difficult to define neatly. It will suffice for present purposes to say that, by any definition, higher education in the United Kingdom covers a wide diversity of types of institution: universities, polytechnics, and colleges of higher education among them. The definition of higher education which was adopted by the recent Leverhulme Inquiry covered about 450 institutions in all. (25) The point which needs emphasising, regardless of the definition chosen, is that higher education does not begin and end with the universities; this thesis, on the other hand, does concentrate on the universities, and no attempt will be made to cover other forms of higher education except incidentally and for purposes of comparison.

(vii) Teaching

It may be thought unnecessary to discuss the definition of 'teaching' at all. There is, however, one point which is worth making. The layman

regards teaching as a process of passing on a body of factual knowledge. A university teacher, on the other hand, is well aware that the 'facts' which were established fifty years ago have in many cases been successfully challenged; consequently he is often just as concerned with developing skills as with imparting information. (26)

Some controversial aspects of teaching will be considered in Chapter Nine.

(viii) Research

'Research' is a term which can usefully be distinguished from scholarship. Research is any form of investigation which leads to new knowledge, that is to say knowledge which has never previously been available to anyone. Scholarship, on the other hand, is the pursuit and mastery of existing knowledge, however obscure. (27)

It is also necessary to distinguish between pure and applied research. Pure research is the pursuit of knowledge for its own sake; applied research is directed at solving specific problems, often in an industrial or commercial context. Pure research is sometimes called basic or fundamental.

Again, some controversial aspects of research will be discussed in Chapter Nine.

(ix) Stakeholders

Stakeholders are all those inside or outside an organisation who are directly affected by what the organisation does. (28) It is usually convenient to think of stakeholders as groups, and in the university context the stakeholders include students, employers, academic staff, non-

academic staff, firms which do business with the university, etc. Stakeholder analysis will be further discussed in Chapter Three.

(x) General comments on definitions

Before leaving the question of definitions, there are a number of points to be made about the linkages between the concepts of mission, goals and objectives. An institution's mission might be 'To transmit knowledge'; a goal might be 'To prepare students for a career as an engineer'; and a related objective might be 'To enable a student to make engineering drawings in accordance with BS308'. (29) This suggests that there is a simple and smooth progression from the abstract mission to the concrete objective, and indeed some authorities have argued in precisely that way. (30) The truth, however, is more complex. Missions may translate into goals relatively easily, but the problem of converting goals into measurable objectives is one which sometimes presents difficulties. (31)

Finally, it should not be forgotten that the process of deciding on the mission, goals and objectives of a university is only an early stage in the university's work. It is then necessary to select the means to achieve the goals, to carry out the necessary functions, and to evaluate the outcomes. These processes will be further discussed in Part Four.

NOTES ON CHAPTER ONE

1. This is confirmed by Fenske (1981) page 178, in respect of the terms 'mission', 'goal' and 'objective' specifically.
2. For example, the definitions of the words 'goal' and 'aim' given in this chapter differ from the definitions laid down by the International Bureau of Education in the text on 'Educational goals' which was published by the United Nations Educational, Scientific and Cultural Organization in 1980. Writing in the field of corporate planning, Ackoff (1981) also offers definitions of 'goals' and 'objectives' which differ from those in general use in the world of education.
3. Hutton (1972), page 57.
4. Lee, quoted by Fenske (1981), page 179.
5. Suggested by Fenske (1978), page 19.
6. Department of Education and Science (1983a), page 27.
7. A point made by Pickup (1976), page 301.
8. Fenske (1981), page 179.
9. Peterson and Uhl (1977), page 5. Etzioni offered a similar definition which was endorsed by Gross and Grambsch (1968), page 5.
10. Peterson and Uhl (1977), page 36.
11. The ability to think critically is highly valued by British academics. See Entwistle, Percy and Nisbet (1971), page 23.
12. Gross and Grambsch were among the first to point this out; see Gross and Grambsch (1968), pages 16 and 17.
13. Principally in the system known as Management by Objectives (MBO); see Chapter Six .
14. Verma and Beard (1981), page 23.

15. The source for the remainder of this paragraph is Pickup (1976), page 302. The use of objectives in education was also popularised by writers such as Mager, whose book on preparing instructional objectives first appeared in 1962.
16. De Landsheere (1977), page 97.
17. Ibid., page 78.
18. Ibid., page 97.
19. A point made by Krathwohl, quoted by De Landsheere (1977), page 130.
20. Verma and Beard (1981), page 48.
21. Committee of Vice-Chancellors and Principals (1978), paragraph 20.01.
22. This is the definition offered by the Robbins Report; see Robbins (1963), page 22. The Latin word universitas simply means 'a whole': Jarman (1963), page 98.
23. According to Burgess (1972), page 40, the Robbins Committee, much to its own surprise, discovered that the independence of universities was such that they could even do things which were expressly forbidden by their charters.
24. See Thomas and Taylor (1974), pages 10 and 41.
25. Ball (1983), page 12.
26. These points are made by Urwin (1969), pages 24 and 25, among others.
27. Urwin (1969), for example, states that in one year there were 226 books and papers published which related to just one aspect of one course which he taught.
28. Ackoff (1981), page 30.
29. Examples adapted from Fenske (1981), page 179.

30. For example, Laughlin and Chamberlain, quoted by Fenske (1981), page 195.

31. See, for instance, Premfors and Östergren (1975), page 55.33.

CHAPTER TWO: PHILOSOPHY AS A SOURCE OF IDEAS ABOUT UNIVERSITY GOALS

This chapter considers two aspects of philosophy: first, the philosophy of education in general, and secondly the philosophy of higher education in particular. The purpose of considering these aspects of philosophy is to discover what they tell us about what the goals of universities could or should be.

The philosophy of education

It seems to be generally agreed that the philosophy of education is in a confused state. It has been variously described as being 'in the doldrums', as 'a discipline in search of direction', and as being 'clearly indequate'. (1) However, in general terms the philosophy of education can be said to consist of attempts to answer two basic questions: 'What is education?'; and 'What is education for?' (2)

The word 'education' is one to which many meanings are given. (3) One useful definition is that offered by the United Nations Educational, Scientific and Cultural Organisation, which states that education is 'organized and sustained instruction designed to communicate a combination of knowledge, skills and understanding valuable for all the activities of life.' (4) Some writers prefer not to use the word education at all, on the grounds that it is 'an emotive term lacking a precise connotation'. (5) The word is derived from the Latin verb educare, meaning to rear or bring up, and ultimately from the verb educere, meaning to lead forth. (6) The process of rearing or leading forth implies some sort of guidance, and so to educate essentially means to guide. The concept of guiding inevitably involves a destination, or an end in view;

(7) thus the concept of education appears to be inseparable from a concept of purpose.

The idea of purpose in turn seems inseparably linked with value. Peters, in a frequently quoted passage, points out that the term education 'implies that something worthwhile is being or has been intentionally transmitted in a morally acceptable manner. It would be a logical contradiction to say that a man has been educated but that he had in no way changed for the better....' (8)

Unfortunately, what is 'worthwhile' to Peters is not necessarily worthwhile to anyone else, and disputes about which particular set of objectives the process of education ought to be designed to achieve are at least as old as Plato. (9) Peters and his 'London School' of educational philosophers, for example, argue that education must be seen as valuable for its own sake and not as instrumental to something else. (10) On the other hand, those who favour a 'vocational' approach believe that education should be more akin to training. This link between purpose and values is further complicated by the fact that science cannot help us to resolve disputes about values; (11) and so if anything at all may be said to be historically inevitable, it is that the debate on the question 'What is education for?' is one which will continue.

The philosophy of higher education

It has already been stated, in the previous chapter, that any definition of higher education in the United Kingdom must include many other institutions in addition to the universities. However, the first point to be made about the philosophy of higher education is that it is chiefly concerned with universities; indeed many of the most important works on the subject include the word 'university' in their title.

The total number of books on the philosophy of higher education is small: a three-foot bookshelf would accommodate all the key volumes without difficulty. Considering the numbers of students who have passed through the British system of higher education in the post-war period, let alone those in any other system, and considering the rapid growth of public expenditure on higher education in those same decades, the lack of philosophical analyses of the subject is surprising. It is not just that the general public is uninterested: there is little sign of any academic enthusiasm either. Some of the books which on first sight appear promising are not so much original contributions to the subject as summaries and discussions of what has already been written. (12) Cohen and March summed up the state of the art when they pointed out that 'Almost any educated person can deliver a lecture entitled "The goals of the university." Almost no one will listen to the lecture voluntarily.' (13)

The result of this situation is that the major issues which have been raised in the history of the philosophy of higher education can be briefly described by reference to the work of a comparatively small number of writers. That is not to say, however, that the short summaries which follow give a full account of the ideas of the writers concerned. There are two reasons for this: the first is that a few paragraphs can never adequately reflect the many facets of work which may have occupied decades; secondly, it is often difficult to decide precisely what the thinkers themselves actually mean. Entwistle and Percy undertook a review of this field of philosophy some years ago and came to the conclusion that 'Throughout the range of comment there is a wealth of superficial statement and conceptual confusion. The task of extracting sense and structure from this area is formidable, and may have defeated us.' (14)

Finally, before embarking on a survey of higher educational theory,

it should be noted that an account of the actual historical development of universities will be provided in the next chapter. It should also be noted that the criterion adopted for selecting the philosophers to be discussed in this chapter is that of influence. The philosophers referred to below are those whose ideas were judged to be those most frequently cited in the literature on higher education.

(i) The earliest philosophers

It has been suggested that the beginnings of the philosophy of higher education are to be found in the civilisation of India in the fourth century B.C. (15) For present purposes, however, it is more fruitful to consider the ideas of two Chinese philosophers, Confucius and Lao-tse (sixth-century B.C.), because their ideas embodied two potentially conflicting educational theories which have found supporters ever since.

Confucius stressed that education was the process of socialisation of the individual and that knowledge should be acquired for the sake of harmony in society. Lao-tse emphasised the cultivation of the invididual, and argued that learning was for the sake of understanding. (16) These attitudes in some ways constitute the earliest expression of two views which later became categorised by the terms 'vocational' and 'liberal', and by a host of similar definitions.

In the western world, the first comprehensive philosophy of education is to be found in the writings of Plato. Higher education was perceived by Plato as the cultivation of the individual for the sake of the ideal society; the individual was to be helped to achieve inner happiness, which would allow the state to benefit from the harmony of satisfied citizens fulfilling their proper roles. Thus some ways Plato's thought parallels that of Confucius. (17)

Aristotle, on the other hand, was very critical of 'vocational' education. (18) He emphasised reason as the guiding principle for human conduct, and claimed that the ultimate aim of education was to prepare the individual for the active enjoyment of leisure. Aristotle was convinced that the activity best suited to leisure was theoria, or the disinterested search for truth. (19) He thus disapproved of occupational studies as being thoroughly unworthy of a freeman. (20) He did, however, accept that there might be two views on the matter. His statement that 'At present, opinion is divided about the subjects of education', was quoted, evidently with feeling, by the Carnegie Commission some 2,300 years later. (21)

(ii) Philosophy between Aristotle and Newman

Aristotle lived in the fourth century B.C., J.H. Newman in the nineteenth century A.D. There is a long gap between them, and in the intervening centuries a number of philosophical ideas emerged which need to be mentioned, even if only briefly. (22)

As the classical world gave way to mediaeval Christianity, the concept of the importance of life on earth was largely replaced by a believe in the life to come; education was seen as a means of attaining salvation through the inculcation of faith, hope and charity. Later in the middle ages the belief arose that the goal of higher education is the pursuit of truth and learning, and the universities became viewed as institutions dedicated to the advancement of knowledge and the training of scholars.

At the time of the Renaissance, humanist philosophy revived the claims that learning is for the express purpose of life in this world and that the goal of education is the well-rounded development of the

individual. It was argued that the training of the mind, not the teaching of vocational skills, is the central concern of education; humanist thought was therefore the direct ancestor of the liberal arts philosophy which is still influential today.

Another challenge to mediaeval concepts of education came from the Protestant Reformation. Martin Luther, for example, encouraged the individual to following his own worldly vocation; for Luther, the purpose of advanced education was to meet the needs of an individual's vocation. Erasmus also stressed the importance of living a good and worthwhile life.

Later in the sixteenth century Montaigne began to put forward a secular view of man as an autonomous being. This secular view of education was developed by such key thinkers as Bacon and Galileo, with their emphasis on observation and experimentation. Bacon was particularly influential; he held that knowledge is necessary to attain mastery over nature and thus improve the human condition. In the seventeenth century the scientific revolution further undermined the role of tradition and revelation, and in their place came mathematical demonstration and empirical evidence.

Other influential thinkers in the seventeenth century were Comenius and Locke. Comenius argued the case for training a student to cope with any eventuality with intelligence and good judgement. This point was taken up by Locke, who agreed with Comenius in opposing specialisation.

Locke's ideas possibly influenced Rousseau. In any event, Rousseau emphasised the importance of the growth and development of the individual as opposed to the creation of a good citizen. This conflict of ideas was first noted in the ancient Chinese philosophies of Confucius and Lao-Tse, and it recurs periodically throughout history.

Thus we come to the nineteenth century. The philosophy of higher education in the nineteenth century has a direct bearing upon our own

times, and it is most conveniently discussed in terms of its most famous practitioner, John Henry Newman; Newman's work is therefore considered in a section of its own.

(iii) J.H. Newman

Newman's book The idea of a university first appeared in 1852. (23). Newman was a Roman Catholic convert who in 1851 became Rector of the newly created Catholic University of Ireland. (24) The idea of a university, which expounded the virtues of 'liberal education', was based on a series of lectures on the scope and nature of university education; these were delivered in an obscure Dublin hall to an audience of Irish bishops. (25) In fact the greater part of Newman's book deals with matters closely related to the time and place of its origins.

The modern reader should bear in mind that Newman was anxious to persuade his audience to ignore the attractions of two views of higher education which were then current. The first of these was the utilitarian view. Exponents of the utilitarian philosophy wrote in the Edinburgh Review. They believed, like Bentham and Mill, that all men are subject to the principle of utility, that is to say they believed that human actions are determined through the consequences of pleasure and pain; hence actions are right insofar as they are useful in increasing pleasure and diminishing pain. The principle of utility was a powerful concept in the educational philosophy of the nineteenth century, but Newman rejected it entirely. (26)

The second concept which Newman was anxious to discredit was the German model of a university, which subordinated all other functions to the extension of knowledge, i.e. research. (27) Newman was strongly opposed to the idea that research is an essential activity for a university.

In the very first paragraph of the preface to his book there is a statement to the effect that a university is concerned with the diffusion of knowledge rather than with its advancement. (28) Later in the book he declared himself unequivocally in favour of a separate academy or research institute in which knowledge would be advanced. He held this view because he considered that teaching and research were separate gifts, 'not commonly found in the same person'. (29)

If Newman was against both utilitarianism and the concept of the university as a centre of research, he was undoubtedly in favour of 'liberal education'. When we try to determine precisely what Newman meant by a liberal education, 'a number of great difficulties present themselves', (30) but the following summary includes the major points.

A liberal education is designed to develop the individual intellect as broadly as possible, with the 'liberal arts' as the core subjects in the broadening process. (31) In Greco-Roman times the liberal arts were a trivium of grammar, logic and rhetoric, and a quadrivium of arithmetic, geometry, astronomy and music. (32) Newman, however, did not imply that those seven subjects were appropriate for a modern curriculum, and he certainly did not wish to confine the curriculum to them. (33) His basic concern seems to have been with literature and science, fused by philosophy; (34) music and art were peripheral for Newman, though today's supporters of the liberal arts philosophy would undoubtedly be concerned with such aesthetic matters. (35)

Whatever the curriculum, the purpose of liberal education is clear: it is to train the mind. Through this kind of education 'a habit of mind is formed which lasts through life, of which the attributes are freedom, equitableness, calmness, moderation and wisdom.' (36) All of this, Newman claimed, was in a sense utilitarian. Individuals who have been educated in this way will be able to 'fill their respective posts in life

better' and be 'more intelligent, capable, active members of society.' (37)

Before leaving Newman, we must not forget that his concept of a university, and the actual universities of his day, were closely linked to religion. 'When the Church founds a university', wrote Newman, 'she is not cherishing talent, genius, or knowledge, for their own sake, but for the sake of her children, with a view to their spiritual welfare....' (38) The massive secularisation of higher education which has occurred over the past hundred years is surely one of the most significant changes, not least at Oxford and Cambridge. Until the late nineteenth century, the idea of the university as the imposer of a single version of religious belief did not come strangely to the Oxford or Cambridge don. (39) But it would surely be a brave don today who tried to enforce a rule that his students should have any religious belief, much less a belief of one specific variety. (This issue has been investigated further by means of a specially designed questionnaire: see Part Three.)

Newman's ideas did not have the immediate effect which is often attributed to them: (40) in other words he did not succeed in preventing universities from pursuing 'utility' or the German research model. His long-term influence, however, was substantial, and continues to the present day. (41) This is particularly true in America where 'an important aim of a liberal arts education is to engender broad intellectual and aesthetic interests.' (42) An educated person, in Newman's terms, could almost be defined today as someone who has heard of Newman; for better or for worse, very few people today appear to have actually read what Newman wrote.

(iv) Ortega y Gasset

Ortega y Gasset was a Spanish Professor of metaphysics. His book

Mission of the university was developed in 1930 from a series of lectures and newspaper articles, but it appeared in English for the first time in 1946. (43) It is frequently quoted in debates on the philosophy of higher education (44) and appears to have been influential in the post-war period.

At the time when Ortega wrote his book, the Spanish university had two accepted functions: to prepare students for the professions and to carry out scientific research. Ortega argued that the research function should be eliminated: research and teaching, in his view, were not necessarily or ideally linked; in that respect he echoed Newman. Ortega argued that the basic function of the university was the teaching of 'culture'. Culture, however, he defined much more broadly than the term is often understood: (45) Ortega's definition covered physics, biology, history, sociology and philosophy. Culture was viewed as that which 'enables a man to live a life which is something above meaningless or inward disgrace.' (46) It provides 'a way through the chaos of the tangled and confused jungle in which man is lost.' (47) These statements are very similar to many of Newman's in that they convey a strong sense of the author's conviction; yet they are bafflingly imprecise, and for many readers who live in the age of the behavioural objective, unacceptably so.

Ortega's importance is that he gave fresh impetus to Newmanesque ideas in the immediate post-war period. He also provides some encouragement today to those who wish to see a few universities, or perhaps some departments within all universities, having no research function at all.

(v) Karl Jaspers

Jaspers's book The idea of the university was first published in 1923;

it was extensively revised in 1946, and was translated into English in 1960. (48) Like Ortega, Jaspers wrote very much for his time and place, (49) but his importance lies in the fact that, in direct contrast to Ortega and Newman, he held that research is central to the University. Perhaps for this reason his work is often referred to with approval in discussions of purpose in British higher education.

In the very first sentence of the introduction to his book, Jaspers states that 'The university is a community of scholars and students engaged in the task of seeking truth.' (50) It is impossible, Jaspers tells us, 'to put readily into words what truth is and how it is acquired', (51) but because 'truth is accessible to systematic search, research is the foremost concern of the university.... The university's second concern is teaching, because truth must also be transmitted.' (52) In the process of transmitting truth, university teachers 'must aim for the formation of the whole man, for education in the broadest sense of the term.' (53) There is a third function for a university, which is culture, (54) but culture in Jaspers's terminology has a meaning which is much closer to the general understanding of the word than to Ortega's definition. Each of these three functions is 'clearly inseparable from the other two'. (55)

Jaspers fully recognises a vocational role for the university. 'The university is simultaneously a professional school, a cultural centre and a research institute'. (56) These three are 'indissolubly united. One cannot be cut off from the others without destroying the intellectual substance of the university.' (57)

Jaspers thus differs from Newman and Ortega in his attitude to research; he insists that no one who is not carrying out out research can fully educate students at a university. (58) However, he repeats a substantial part of Newman's case for liberal education in his emphasis on 'the whole man'. (59) He stresses the importance of giving technology a

central place in the university structure so that it may achieve a 'genuine relation with the Humanities.' (60)

Jaspers's work first appeared in England at a time when higher education was passing through a period of rapid growth, and a number of academics regarded it as profound. (61) His chief attraction today is as a source of ideas for those who seek to defend the link between teaching, research, and the education of that mysterious being, 'the whole man'.

(vi) Clark Kerr

Kerr's book The uses of the university was based on his 1963 Godkin lectures at Harvard University; a revised edition appeared in 1973. Kerr is famous among the cynical for having stated that he sometimes viewed the university as 'a series of individual faculty entrepreneurs held together by a common grievance over parking.' (62) This statement must not, however, be taken as his final word on the nature of universities.

Kerr's influence has been considerable. According to the editor of The Times Higher Education Supplement, 'Newman was the household god of the traditional university, and Clark Kerr occupies the same icon-like position for the modern university.' (63)

Kerr began his book by pointing out that 'The university has been a remarkably unstudied institution until very recently.' (64) Having paid due tribute to such writers as Newman and Flexner, he went on to put forward the idea of a multiversity. This was essentially a concept of the university as having a multiplicity of purposes. (It might, or might not, have a multiplicity of campuses.) It is important to understand that in outlining this concept Kerr was not speaking of that vast amorphous body, American higher education as a whole, but of a limited number of so-called 'research universities'. (65) It is also important to note that the

danger associated with the multiversity was that it might become so many things to so many different people that it would be perpetually be at war with itself. (66)

The very title of Kerr's lectures indicated a considerable shift, at least in America, from traditional perceptions of the role of the university; the implication was that the university should be useful, in many practical ways, to the society in which it existed. (67) And yet, even in America, universities change only very slowly. As late as 1978, the President of Harvard reported that 'The assumption that liberal education is the paradigm of higher education, is perhaps for the first time being seriously questioned.' (68)

(vii) Some conclusions about the philosophy of higher education

A number of broad conclusions may be drawn from this limited survey of the philosophy of higher education.

The first conclusion is that philosophy is not prescriptive: it does not prove, with the aid of logic or science, that universities must inevitably have certain stated goals. Secondly, there is no universally accepted view of the purpose of higher education. The functions of teaching and research (functions as distinct from purposes) are common to almost all universities; other functions, such as 'public service' (however defined) and 'the transmission of higher culture', (69) are more controversial. However, it is possible, and it may be useful, to identify two contrasting philosophies of higher education which have surfaced and resurfaced over the centuries. These, for the sake of convenience, we will call the liberal arts philosophy and the vocational philosophy.

The term 'liberal arts' (eleutherai technai) first occurred in Greece in the fourth century B.C. In that context it meant the skills that a

free man ought to have, (70) and traditionally the liberal arts have been considered suitable educational fare for the potential leaders of society. Liberal arts philosophers hold that education should serve the needs of the individual; (71) they believe that people seek to understand the world they live in simply as a matter of curiosity; (72) the pursuit of truth is the highest virtue, and it may be found, usually, through the exercise of reason. A liberal education is said to enhance the capacity to lead a full life. (73)

Vocational studies, on the other hand, have often been considered more suitable for followers than for potential leaders. Those who favour vocational studies tend to hold the view that education should serve the needs of society rather than the needs of the individual. (74) Professional expertise should be developed not as a matter of idle curiosity but because of its enormous significance for the community; the nation needs trained manpower. (75) The truth, to supporters of the vocational principle, is not an absolute, unchanging verity but something which is always being discovered and tested and applied anew; (76) the purpose of education is essentially to improve man's lot and to travel further along the road called Progress. (77)

Both the liberal and vocational philosophies have appeared under a host of other names, a practice which has done little to clarify the ideas involved in them. Some of the better known alternative names are listed below, together with the authors who have devised the various terms. (78)

Author	Term used to describe liberal philosophy	Term used to describe vocational philosophy
Harvard Report on the Nature and Purposes of the University	Classical	Pragmatic
Butts and Cremin	Intellectualist	Experimentalist
Carnegie Commission	Restorationist	Utilitarian
Burgess	Autonomous	Service
Brubacher	Epistomological	Political

Whatever the terminology used, it seems clear that these two philosophies represent broad divisions of view which are difficult to reconcile. The liberal philosophy finds its greatest support in theology, in the humanities, and in the liberal arts college; it emphasises the library and the discussion group. (79) The vocational view finds its advocates, broadly speaking, in the sciences and the professions; its home is the laboratory.

The sensitive antennae of the Carnegie Commission detected a third philosophy, which has only recently emerged; this is variously described as the political, reconstructionist or transformational view. (80) The essence of this philosophical approach is an envisioned perfect state, whether it be anarchy, democracy, the 'cultural revolution triumphant', or whatever. (81) While there are undoubtedly members of most universities who could be characterised as belonging to this school of thought, there does not seem to be, as yet, any university in the western world which has adopted this approach officially. Even in the People's Republic of China the higher education policy might best be described as one of vocational-technical training. (82)

Each of the two broad philosophical approaches has been dominant

at various times and in various places. The liberal arts philosophy gradually rose to dominance, in both Britain and America, in the late nineteenth century; (83) and although it is difficult to judge precisely, the vocational approach seems to be in ascendance in the United Kingdom today. The position is difficult to judge because neither universities nor governments seem to be able to take up a clear, unambiguous position. The 1972 White Paper on Education, for example, was determined to face both ways at once:

> 'The Government consider higher education valuable for its contribution to the personal development of those who pursue it; at the same time they value its continued expansion as an investment in the nation's human talent in a time of rapid social change and technological development.... The Government hope that those who contemplate entering higher education - and those advising them - will the more carefully examine their motives and their requirements; and be sure that they form their judgment on a realistic assessment of its usefulness to their interests and career intentions.' (84)

The main conclusion drawn from this chapter is that the question of the purpose of a university is essentially a matter of judgement; it is not something which can be determined by science, in the same way that a dispute over the length of a piece of string can be resolved. Nevertheless, as later chapters will make clear, systematic methods of enquiry may be able to offer some assistance in determining goals in that they may clarify and inform the debate.

NOTES ON CHAPTER TWO

1. Statements quoted by Pritchard (1983), page 119.
2. Meynell (1976), page 79.
3. Verma and Beard (1981), page 41.
4. Source: Page and Thomas (1977).
5. Beard, Healey and Holloway (1970), page 1.
6. Source: the Oxford English Dictionary (1961), volume III.
7. A point made by De Landsheere (1977), page 79.
8. This statement by Peters is quoted by De Landsheere (1977), page 79, and by Woods and Barrow (1975), page 10.
9. Ebel, Noll and Bauer (1969), page 908.
10. Hobson (1982), page 232.
11. For a discussion of why science cannot determine values see Brecht (1959).
12. See, for instance, Brubacher (1978).
13. Cohen and March (1974), page 195.
14. Entwistle and Percy (1970), page 31.
15. Chaplin (1978), page 3204.
16. Ibid., page 3205.
17. Ibid.
18. Brubacher (1978), page 74.
19. Chaplin (1978), page 3206.
20. Brubacher (1978), page 74.
21. Carnegie Commission (1973), prefatory page.
22. For a useful summary of this period see Chaplin (1978).
23. It has been reprinted many times, often with an introduction to set it in context. The version used in this thesis was Newman (1959.
24. Shuster, in the introduction to Newman (1959), page 21.

25. Kearney (1973), page 6.

26. Chaplin (1978), page 3214.

27. Beard, Healey and Holloway (1970), pages 21 and 27.

28. Newman (1959), preface.

29. Beard, Healey and Holloway (1970), page 28.

30. Shuster, in the introduction to Newman (1959), page 33.

31. Beard, Healey and Holloway (1970), page 28.

32. Brubacher (1978), page 72.

33. Shuster, in the introduction to Newman (1959), page 35.

34. Ibid., page 36.

35. Ibid., page 41.

36. Ibid., pages 30 and 31.

37. Newman (1959), page 9.

38. Ibid.

39. Kearney (1973), page 17.

40. Ibid., page 6.

41. Beard, Healey and Holloway (1968), page 40, claim that Newman's ideas had considerable influence on the academic planning of certain of the newer universities.

42. Bok (1973), page 3. Bowen, the President of Princeton University, devoted his Report of March 1977 to a staunch defence of liberal education. See Bowen (1977).

43. Wyatt (1981), page 59. The summary of Ortega's ideas in this section is largely derived from Wyatt's paper.

44. Beard, Healey and Holloway (1968), page 38.

45. More broadly, for example than in the reference to culture in the Robbins report. See Robbins (1963), page 7.

46. Quoted by Wyatt (1981), page 62.

47. Ibid.

48. Wyatt (1982), page 21.

49. Deutsch, in the Editor's Note to Jaspers (1965), page 16.

50. Jaspers (1965), page 19.

51. Ibid., page 20.

52. Ibid., page 21.

53. Ibid.

54. Ibid., page 51.

55. Ibid.

56. Ibid., page 53.

57. Ibid., page 54.

58. Deutsch, in the Editor's Note to Jaspers (1965), page 16.

59. Zangwill, in the preface to Jaspers (1965), page 9.

60. Ibid., page 10.

61. For example, Ashby - cited by Wyatt (1982), page 21.

62. Kerr (1973), page 20.

63. Scott (1981a).

64. Kerr (1973), page vii.

65. Kwiatkowski (1983), page 464.

66. A point made by David (1982).

67. Ross (1976), page 141.

68. A statement by the Dean of the University of California Business School, quoted by Bok (1978), page 3.

69. Trow, quoted by Ross (1976), page 142.

70. Bowen (1977), page 4. Bowen is quoting Connor, the then Chairman of the Classics Department at Princeton.

71. Nash (1975), pages 410 and 412.

72. Brubacher (1978), page 12.

73. Bowen (1977), page 36.

74. Nash (1975), pages 410 and 412.

75. Brubacher (1978), page 13.

76. Carnegie Commission (1973), page 84.

77. Ibid.

78. The principal source for this list is the Carnegie Commission (1973), page 83. See also Burgess (1979) and Brubacher (1978).

79. Carnegie Commission (1973), page 87.

80. Ibid., page 83.

81. Ibid., page 85.

82. Chaplin (1978), page 3217.

83. Carnegie Commission (1973), page 90.

84. Quoted by Morris, Woodhall and Westoby, (1977), page 90.

CHAPTER THREE: ORGANISATION THEORY, THE CONCEPT OF UNIVERSITIES AS AN INVESTMENT, AND MANPOWER PLANNING

The previous chapter considered the insights into university goals which may be obtained from the philosophy of education. The present chapter examines some further approaches to the analysis of universities and their purposes. The first of these is the study of universities as organisations; the second is the economic concept of universities as an investment - an investment both for society and for the individual student; the third approach is that of manpower planning. The reason for examining these issues is once again to discover what light they shed on the possible goals of universities.

Universities and organisation theory.

There are, in fact, a variety of organisation theories rather than one generally accepted theory, but one of the few things that organisational theorists agree on is the necessity of defining an organisation's goals. (1) Indeed, the traditional view of organisation theorists is that an organisation is, by definition, a social unit which has been explicitly established for the achievement of specific goals. (2) However, as has already been noted in Chapter One, some of the phenomenologically inclined sociologists argue that to say that an organisation has a goal is to indulge in reification; it attributes the power of thought and action to a 'social construct'. (3) It must therefore be remembered that what appear to be 'organisational goals' are actually the common goals of the people who are members of the organisation. These goals are the result of 'shifting compromises among the individuals within the organisation and

the demands made by the environment'. (4) Compromise leads to agreement, however reluctant; and therein lies the rub for universities, because most authorities suggest that it is difficult to persuade the members of a university to agree on goals.

Universities are sometimes considered to be among the class of organisations which may be called environment-serving; (5) this class includes hospitals, the post office, and the church. (6) Other authorities argue that universities cannot properly be compared with any other form of organisation. Universities are said to be unique, for two principal reasons: first, because they have a multiplicity of missions; and second, because no one has absolute authority within the organisation. (7) 'Universities are clearly a genus apart', declares Perkins. (8) 'A university is, in many ways, a non organization', says Fenske. (9)

What then, in organisational terms, is a university? It may be an organised anarchy. This is a description which originated with Cohen and March (10) but which has found favour elsewhere. (11) Universities are considered to be organised anarchies because their goals are vague or in dispute, because they do not understand their own governmental processes, and because the participants in the organisation change from time to time and vary in the effort they devote to the organisation. Ambiguity is alleged to be the dominant characteristic of universities. (12) Cohen and March say flatly (of the American university) that 'it does not know what it is doing'. (13) If the existence of mission statements is any guide, that must be even more true of British universities than it is of American ones. (See Chapters Six and Seven.)

Organisation theorists do not suggest that the situation is likely to be resolved even after the diagnosis of organised anarchy has been made. Cohen and March conclude that 'there are only modest signs that universities or other organized anarchies respond to a revelation of

ambiguity of purpose by reducing the ambiguity'. (14) Universities are held to be peculiarly resistant to change, (15) and indeed Rice argues that 'there is in the majority of universities massive unconscious agreement to maintain organizational confusion in order to avoid recognition of the conflict of cultural values'. (16)

The picture of universities which is painted by organisation theorists is scarcely favourable. But to declare that an organisation is an organised anarchy is not to say that it is illegitimate, immoral or ineffective; it is simply to say that it is difficult to lead and to control. (17) Furthermore, the fact that universities have carried out their business in much the same way for very long periods of time gives them some credibility even if it does not provide a complete defence against the charge of irrationality. For there are at least two other procedures for choice in addition to pure reason: intuition, which causes people to act without fully understanding why; and tradition, which causes people to do things in a way which has proved satisfactory through long experience. (18)

This discussion of organisation theory could not be concluded without some reference to the 'systems approach'. In the 1960s, largely in America, a vast amount of literature was produced which compared organisations with systems of one kind or another: biological, mechanical, administrative and other varieties. (19) For some years the journals were full of systems analyses which involved inputs, outputs, black boxes, sub-systems, concepts such as homeostasis, negative feedback, and transformation; many were the diagrams which were drawn to illustrate these processes. (20) At first, much was expected of the systems approach; in fact too much was expected of it, and by 1972 Kraft and Latta labelled it an 'out' term which just a year ago was an 'in' term. (21) Systems analysis did provide a large number of useful insights,

however, and still does. What it did not do was to provide any magic answers to such difficult questions as what it is that universities should be trying to achieve, and the amount of the resources which should be devoted to each particular goal. Systems thinking often clarified the questions and focussed attention more precisely on the issues: but it did not provide a substitute for judgement.

Another approach which has been of some value is that of stakeholder analysis. Stakeholders are all those inside or outside an organisation who are directly affected by what the organisation does; (22) they are involved, consciously or unconsciously, in a series of exchanges with the organisation. If we apply this type of analysis to a typical British university, the principal stakeholders, together with what they put in and what they take out of the organisation, can be listed as shown below. The stakeholders are not listed in any order of importance.

Stakeholder group	Input	Output
Central government	Money	Services (chiefly graduates)
Employees	Labour	Money
Industry/commerce/ other employers	Research contracts, sponsorship	Employees, research findings
Local government	Money	Services
Professional institutions	Advice, money	Members, courses
Research Councils	Money	Research findings
Students	Money	Education
Suppliers	Goods and services	Money

In terms of stakeholder analysis, the proper aim of an organisation is not to serve any one of its stakeholder groups to the exclusion of any of the others: it is to serve all of them by increasing their ability to pursue

their own aims more efficiently and effectively. (23)

To conclude, then, organisation theory offers a number of interesting and valuable ways of analysing the university's relationship with its environment; what it cannot do, any more than educational philosophy can, is to offer a definitive answer to the question of what a university's goals should be. It can only offer pointers to possible goals. It is therefore appropriate to look next at a type of analysis which conveys heavy hints as to what the goals of an institution ought to be: that is the economic concept of universities as an investment both for the community and for the individual. It will also be useful to consider the concomitant of the investment approach, which is the concept of manpower planning.

Universities as an investment

Teaching is clearly a major function of a university, and it has been suggested (24) that teaching can be viewed as having three possible effects. In the first place it can act as a process which 'matures' students; secondly, it can identify talent by filtering out the more able students from the average; and thirdly, it can increase the nation's human capital by endowing students with knowledge and skills. All of these potential outcomes imply that teaching has a value for society.

Governments have also placed a high value on research. In his speech to the Committee of Vice-Chancellors and Principals, given immediately before he retired as Chairman of the UGC, Sir Edward Parkes commented that 'governments still hope that somehow scientific discovery is going to lead us out of world recession.' (25)

In view of the apparent benefits of teaching and research, governments have tended to regard higher education as a sound investment of public funds, (26) in the post-war period particularly.

Indeed, the view has often been expressed that increasing the volume of higher education not only results in an increased rate of economic growth, but is the key to survival in an increasingly technological age. (27) The Robbins report of 1963 argued that 'Unless higher education is speedily reformed... there is little hope of this densely populated island maintaining an adequate position in the fiercely competive world of the future.' (28)

By the 1970s, however, the rising cost of the expansion of universities, both in the United Kingdom and elsewhere, began to come under increasingly close scrutiny. (29) One of the major themes of a German study of 1976, prepared for the International Labour Office, was the widespread disappointment with the consequences of an expansion of higher education, at least as far as economic growth was concerned. (30) In 1980 Robbins himself stated that he simply could not take seriously 'any attempt to trace any obvious correlation between rates of growth of gross national product... and the proportion of the relevant age-groups receiving higher education.' The variables, he argued, 'are so numerous and the connections are often so indirect.' (31) The view was also expressed that economic expansion depends partly upon the growth of knowledge but also upon the ability of governments and industrialists to apply it, and that in the United Kingdom such ability was sadly lacking. (32)

Nevertheless, the belief that universities contribute greatly to the economic well-being of a nation clearly remains strong. In the United States, the President of Princeton University stated in his 1979 Report that 'While precise calculations of economic effects are not possible, careful studies suggest that advances in knowledge have accounted for roughly one quarter to one third of the increase in national income in the United States since 1979.' (33) The major conclusion of a lengthy

American study published in 1978 was that the sum of the benefits of higher education exceeded the total cost by a factor of three or more. (34) In the United Kingdom, Robin Marris, a Professor of Economics in London University, declared in 1984 that 'the economic return to the nation from university education is so high, that there is in fact an overwhelming case for a new massive expansion; for, in effect, a "new Robbins".' (35)

The evidence suggests that, despite some lowering of expectation in recent years, there is a consensus that teaching, research and other university activities provide a sound return on investment for society as a whole; certainly that view is accepted by the Government's Green Paper of 1985 (annex B, paragraph B12). But what of the individual's investment? Anyone who embarks on a university degree course must inevitably commit a considerable period of time, and time is a finite resource; the student must also forego the earnings which could have been generated in that time. Is the investment worthwhile?

Most authorities agree that it is. (36) The American Carnegie Council concluded in 1980 that although the return on a degree, expressed in life earnings, had fallen in the mid 1960s and mid 1970s, it was now rising again. (37) Marris is also convinced that graduates have greater earning power than non-graduates. (38) There are, of course, other benefits conferred on graduates in addition to enhanced earnings: and Bowen's study declares that 'These nonmonetary benefits surely are far greater than the monetary benefits.' (39) Whatever the balance of the various advantages, it does seem clear from the steady demand for admission to British universities that most young people who are qualified to take a degree believe that it is in their best interests to do so. Once again, the Green Paper of 1985 concurs, stating that the private rate of return is higher than that for society as a whole (annex B, paragraph B12).

Manpower planning

There are two principal stages in manpower planning. The first stage involves forecasting the numbers of persons with certain specified skills (engineers, teachers etc.) which are required at a future date; the second stage involves taking the action which is necessary to ensure that the required manpower is available at the target date. (40) Although manpower planning is a process which can be confined to a particular industry or profession, it is normally considered as operating at national level; one survey revealed that by the mid 1970s some sixty nations had drawn up an educational plan based on an investigation of manpower needs. (41) It is a relatively recent innovation: the major international review of manpower forecasting cites no references earlier than 1949, (42) though the Soviet Union was certainly using manpower-planning techniques in the 1920s. (43)

Manpower planning, on a national level, must inevitably start by taking note of the goals of the nation's economic plan; the goals provide a set of required final outputs of goods and services. From these goals a calculation can be made of the future manpower requirements of the society in question. This calculation is far from straightforward. Suppose, for example, a nation wishes to calculate its need for medical staff. The planners have to begin with such facts as the age, training and positions of present personnel; they need to calculate losses due to death, retirement, emigration and other factors; they must consider the birthrate. Once a calculation has been made of future needs, the planners have to consider how the personnel are to be trained, for how long and by whom. New institutions may be necessary; in some cases incentives may have to be devised to encourage volunteers for training to come forward. Once made, the calculations cannot be assumed to hold

good for ever; they have to be kept under continual review. It will therefore be immediately apparent that manpower planning is a process which itself consumes resources on a significant scale. (44)

No matter how large the resources devoted to manpower planning, and no matter how centralised the society, there have proved to be great practical difficulties involved. Ideally, forecasts need to be made for very long periods - 15 or 20 years. But in many countries there are problems in obtaining the most basic statistics: in Nigeria, for example, even the figure for the total population was so uncertain in 1963 that the two most authoritative estimates were as far apart as 37,400,000 and 55,700,000. (45) In countries such as India and Pakistan, manpower planning in the 1960s resulted in considerable unemployment and under-utilisation of professional and technical staff in the 1970s, despite the assistance of foreign experts. (46) Even in countries such as Canada, France, Great Britain and Sweden, case histories show that many forecasts have been failures and have resulted in wrong policy decisions. (47) Not surprisingly, therefore, many countries have become sceptical about the value of the process. (48) Burton R. Clark has concluded that even centralised bureaucracies cannot effectively co-ordinate mass higher education, largely because they are not quick or flexible enough in their reactions: he quotes Thailand as a classic example. (49)

It has been suggested that the possible solution to some of the technical problems involved in manpower planning lies in continuing education. Under a traditional system of higher education, a three or four-year degree course would be expected to equip a graduate for forty years of working life, thus requiring the planner to adopt an impossibly long-term view. If, however, higher education were to consist of, say, a six-month course every five years, the planning horizon would become more realistic. (50) One other source of relief for the manpower planner

lies in the fact of substitutability: there are comparatively few jobs for which the skills required are so specific as to exclude employing anyone except an individual trained for that job alone. For example, there are many different ways of staffing a hospital, let alone a factory or a shop. (51) Even in highly technical areas, a physics graduate may be able to perform as well as an electrical engineer.

Probably the first systematic attempt to relate the planning of higher education to the needs for professional personnel occurred in the Soviet Union in the 1920s. During the next two decades these methods were adopted by several other countries with centrally planned economies. (52) In the Soviet Union today, all institutions of higher education are centrally controlled and have their enrolments and specialisms calculated to meet the targets of Gosplan, the state economic planning agency. Planning is done on a five-to-seven-year base. The institutions are highly specialised, monotechnics, as it were, rather than polytechnics. The chain of command runs directly from the Central Committee of the Communist Party, through the USSR Ministries of Education and Higher Education, to the constituent Republics and so on down the line. Everything is prescribed, right down to the number of hours per week per subject and the specification of lectures or seminars in terms of teaching style. (53)

Another centrally planned economy is that of Romania. There, as in the USSR, the goals of higher education constitute an integral part of the national plan for the socio-economic development of the country. At the end of their course, new graduates are assigned to vacant posts according to the result they have obtained during their studies. Married couples are assigned according to the higher grade obtained by either the husband or wife, and both are sent to the same district. All graduates are required to remain in their first post for at least three years. (54) Thus to some extent the centrally planned economies avoid the graduate unemployment

which sometimes occurs in the market economies. Nevertheless, the planned economies, such as the German Democratic Republic, Hungary and Poland, do temper their dedication to the needs of the economy by encouraging the participation of young people from workers' homes and from rural areas, even if they are not as well qualified as other students; they also allow some measure of individual choice of course. (55)

Clearly, manpower planning is more likely to be successful in planned economies than in market economies; (56) but it must not be assumed that the central governments of western European democracies are altogether powerless. To begin with, they usually provide much of the finance for higher education; they control emigration, military service, student grants, and a host of other relevant factors. Often they intervene directly to influence the numbers of teachers or doctors produced by the system. (57) That having been said, however, it has to be admitted that the record of manpower planning in western economies is not impressive. In the United Kingdom, for example, an inaccurate assessment of the rising birthrate in the 1950s led to an increase in teacher-training provision. In the 1960s, when the teachers entered the market, the expected demand had not materialised. Conversely, admission to British medical schools was deliberately limited in the late 1950s but by the early 1960s there was a shortage of doctors, and in 1968 the Todd Report recommended that admissions should be almost doubled compared with the 1961 level. (58)

The principal difference between the planned economies and the market economies is that provision of higher education in the former is determined by the expected needs of the economy, while in the latter it is largely determined by social demand. However, just as the planned economies make some allowance for social equality and personal choice, so the market economies intervene to influence the level of provision in

expensive fields such as medicine. The result is that although the two political systems have very different theoretical approaches, the gap between the practice of the two groups of nations is not as wide as might be expected. A recent study has suggested that the gap is still closing. (59) For example, countries such as the United Kingdom, the Federal Republic of Germany, the Netherlands and Sweden are now beginning to emphasise the vocational element in courses; Poland and the German Democratic Republic are beginning to talk about education for innovation and creativity, while returning much of the vocational component to employers. (60) Thus the two systems are beginning to converge in their solutions to the problems they face. The main difference remaining is that the planned economies make adjustments at the point of entry to higher education. Countries using social demand as the main criterion for the level of provision have problems of adjustment at the point where new graduates enter the labour force; at present, therefore, the market economies still place a greater emphasis on flexibility and the substitution of skills. (61)

Economists are divided into those who believe in manpower planning and those who do not; it is a highly controversial subject. (62) The main arguments in favour of manpower planning are that higher education makes heavy demands on a nation's resources and therefore ought to be as efficient and effective as possible; also many of the students clearly believe that it has vocational implications for them. The main argument against manpower planning, desirable though it may be in theory, is that it appears to be impossible to assemble sufficiently accurate data to permit long-term forecasts to be made; a lesser argument is that the possibility of substitution between most categories of manpower makes planning unnecessary. (63)

On the whole the balance of the evidence suggests that manpower

planning does not work very well; certainly, as far as the United Kingdom is concerned, manpower planning on a significant scale has never been adopted. The Robbins Report explicitly rejected the possibility of determining the number of places in higher education on the basis of manpower needs; (64) it did so for both moral and practical reasons. (65) Some twenty years later, in the Leverhulme seminar on higher education and the labour market, there was a general consensus against manpower forecasting of any kind. (66)

Nevertheless, the wisdom of this collective view must be questioned. Manpower planning techniques may be imperfect, but allowing the system to be dominated by market forces is also unsatisfactory. All too frequently students and institutions respond to an increase or a fall in demand for say, engineers, only to find that by the time their response takes effect the situation has changed yet again. These 'cycles of mismatch' have been well documented. (67) In the face of these problems, several nations have concluded that while there are considerable difficulties in making reliable forecasts of qualified manpower needs, it is increasingly desirable to attempt such calculations. (68) Even if the central planning authority is unable to forecast demand without error, it may well be able to forecast it more accurately than individual students or institutions. Furthermore, the personal choices of students are by definition not choices made in the national interest.

Not surprisingly, perhaps, the British Government has historically sought to resolve the situation by compromise. Governments have usually sought to influence the supply of scientists or engineers on a 'broad-steer' basis, (69) and in March 1984 the Secretary of State for Education and Science indicated that this approach would continue. (70)

Conclusions from the study of organisation theory and economic considerations

The conclusions drawn from this chapter are simply that organisation theory and economic considerations enable us to see more clearly what universities are, what they could be, and the tasks which various stakeholder groups envisage for the institutions. Such studies provide no simple answer to what the goals of a university should be, but they provide a wider and deeper frame of reference within which to form judgements.

On the question of manpower planning it has to be said that centralised control appears to have more in its favour than the British love of liberty allows us to admit. Judgements by British writers of the effectiveness of manpower-planning techniques are all too easily coloured by a dislike of the consequences for the individual; awareness of the benefits for society can be correspondingly muted.

NOTES ON CHAPTER THREE

1. Fenske (1981), page 178.
2. Thomas and Taylor (1974), page 38. The statement is endorsed by Silverman (1970), page 8.
3. Silverman (1970), page 9, and Hoyle (1980), page 160.
4. Nosow and Clark (1976), page 7.
5. Ansoff's term: Ansoff (1979), page 9.
6. Ibid., page 10.
7. Perkins (1973), page xv.
8. Ibid, page xvi.
9. Fenske (1978), page 81.
10. Cohen and March (1974), page 2. Their conclusion was based on 218 interviews in 42 different institutions (page xxi).
11. For instance, Enderud (1980), page 235.
12. Clark (1979), page 1.
13. Cohen and March (1974), page 3.
14. Ibid., page 196.
15. Elton (1981), page 23.
16. Rice (1970), page 109.
17. Points made by Enderud (1980), page 237.
18. These arguments are advanced by Cohen and March (1974), page 200.
19. Jones (1967) distinguished eleven different kinds of systems.
20. Whole books were also written on the subject. See, for example, Immegart and Pilecki (1977), and Hamelman (1972).
21. Kraft and Latta (1972), page 5.
22. Ackoff (1981), page 30.
23. Ibid., page 33.
24. By Johnson. Quoted by Jones (1979), pages 513 and 514.

25. Parkes (1983), page 20.

26. Thomas (1980), page 73.

27. See, for example, Management Today (1984).

28. Robbins (1963), page 5.

29. Halsey (1981), page 11.

30. Teichler, Hartung and Nuthmann (1981).

31. Robbins (1980), page 10.

32. A view put forward by Edwards (1982). In 1984 the UGC argued that widespread higher education is a necessary but not a sufficient condition for economic growth. See University Grants Committee (1984).

33. Bowen (1979) page 4.

34. Bowen (1978), pages 447 and 448.

35. Marris (1984), page 14.

36. Teichler, Hartung and Nuthmann (1981), however, express some doubt about the relationship between income and education.

37. Halsey (1981), page 186.

38. Marris (1984), page 15.

39. Bowen (1978), page 447.

40. This definition is adapted from Horowitz (1978).

41. Morris, Woodhall and Westoby (1977), page 47.

42. Wolfle (1978), page 2709.

43. McVoy (1978), page 2713.

44. This brief account of the manpower-planning process is derived largely from Horowitz (1978) and Wolfle (1978).

45. Wolfle (1978), page 2709.

46. McVoy (1978).

47. Wolfe (1978), page 2710.

48. Ibid. Also Morris, Woodhall and Westoby (1977), page 47.

49. Eurich (1981), pages 57 and 58.

50. See Fulton, Gordon and Williams (1980), page 104.

51. Ibid., page 88.

52. McVoy (1978), page 2713.

53. Grant (1985).

54. Burloiu (1980).

55. Fulton, Gordon and Williams (1980), page 109.

56. Ibid., page 112.

57. Wolfle (1978), page 2709.

58. McVoy (1978), page 2727.

59. Fulton, Gordon and Williams (1980).

60. Ibid., page 84.

61. Ibid., page 93.

62. Morris, Woodhall and Westoby (1977), page 50.

63. Fulton, Gordon and Williams (1980), page 85.

64. Committee of Vice-Chancellors and Principals (1978), page 3.

65. Williams (1983), page 13.

66. Blaug (1982), page 170. See the final volume of the Leverhulme Report (Excellence in diversity), page 39.

67. Pearson (1985), page 194, for example.

68. Fulton, Gordon and Williams (1980), page 95.

69. Times Higher Education Supplement (1984a), page 1.

70. Ibid.

CHAPTER FOUR: THE HISTORY OF BRITISH UNIVERSITIES

This chapter is not intended to be a potted history of British universities. (1) The historical development of the universities is reviewed here for two reasons: first, to discover what goals were envisaged for British universities, both at the time of their foundation and subsequently; and secondly, to identify the major landmarks in the history of higher education in the United Kingdom. Landmarks in this context are defined as events which have influenced the goals of universities, either directly or indirectly.

The early universities

Oxford University was founded in 1214, Cambridge University in 1318; for five hundred years they were the only universities in England, though St. Andrews, Glasgow, Aberdeen and Edinburgh were established north of the border. (2) These ancient universities were founded to promote the training of the clergy, doctors and lawyers. (3) In the process of training those professional classes, the universities came to emphasise the pursuit of truth and learning; thus was established an important and resilient tradition. (4)

In the post-mediaeval period the universities' position as centres of vocational training declined (except as far as the church was concerned). (5) Unfortunately it cannot be said that they made up for the decline by developing high standards in other directions. Three great intellectual movements - the Renaissance, the scientific revolution, and the Enlightenment - all came about without much impetus from the universities. (6) Substantial contributions to experimental science and technology were made by men with no university background at all. (7)

The nineteenth century

It is fair to say that the growth of new universities in the nineteenth century was a result of the failure of Oxford and Cambridge to meet the nation's needs. (8) Non-conformists, Jews and Roman Catholics were still refused admission to Oxford and Cambridge, a situation which in 1826 led to the foundation of University College, London, where there were no such bars to admission. In 1836, University College, together with King's College, was granted a charter as the University of London, an event which had beneficial and far-reaching effects both in Britain and overseas. From 1858 the University of London acted as a degree-giving body for students at other institutions. This meant that civic colleges such as Owens College, Manchester, could offer degree-level courses and qualifications. (9)

Pressures to reform the curriculum at the older universities were firmly resisted, and 'the most powerful argument for founding new colleges was the reluctance of the older universities to train the middle class in science applied to industry'. (10) The first physics classes in the Clarendon Laboratory at Oxford did not take place until 1870; the building of the Cavendish at Cambridge began in 1871. (11) Oxford and Cambridge remained what they had been for centuries, i.e. great centres of education for the Church of England; they also continued the academic study of law and medicine, but they played little part in the training for those professions. (12)

Society's needs were both national and local, and the older 'civic' universities, such as Durham, Manchester, and Birmingham, were originally intended to serve local needs; (13) those needs had often been created by the industrial revolution. (14) In almost all cases, however, the founders of the civic universities had a vision beyond immediate local utility, (15)

a vision which encompassed both general cultural concerns and also national needs. (16)

National needs were brought into focus by the Great Exhibition of 1851. The public began to realise that to maintain Britain's position as the workshop of the world it would be necessary to strengthen education in science and technology. (17) The fear of industrial competition from the continent was a powerful stimulus. There was increasing awareness of the success of the German universities, which subordinated all other functions to the concept of Wissenschaft - the university as a centre for research. (18) The new civic universities absorbed Wissenschaft 'in their very foundation stones.' (19)

There were two other important elements in the German idea of a university: Lernfreiheit (the freedom of the student to learn what he wishes) and Lehrfreiheit (the freedom of the teacher to teach whatever he wishes). (20) Lernfreiheit caught on in America (21) but not in Britain; Lehrfreiheit, on the other hand, was accepted here. (22)

The institutions which were founded as a result of these stimuli did not begin life as fully fledged universities, and at first many of them struggled for survival. (23) The college at Manchester did not receive a penny from the city until it had been in existence for forty years. (24) It was therefore perhaps just as well that two eminent scientists, William Ramsay, FRS, and W.M. Hicks, FRS, persuaded the Government in 1889 to make a grant of £15,000; this was used to alleviate the financial problems faced by the eleven university colleges and was described by Ramsay, prophetically, as 'the thin end of the wedge'. (25)

Despite their origins, the new universities of the nineteenth century did not remain local in their curriculum and purpose for very long, (26) and they eventually became institutions offering a variety of courses and drawing students from all over the country. (27) However, the growth of

British universities in the nineteenth century, and the growth of Government investment in them, was comparatively slow. In 1902 Germany had 22 universities for a population of about 50 million; in the same year England had 7 universities for a population of 31 million. In 1897 the British Government gave £26,000 in grants to universities; the Germans gave nearly £500,000. (28)

The early twentieth century

The period prior to the depression of the 1930s witnessed an important expansion of British universities. (29) The universities of Birmingham, Liverpool, Leeds, Sheffield and Bristol were all founded in the first decade of the twentieth century. (30)

Other universities were conceived during this period even if they were not formally established: in 1920, for example, an appeal was launched to establish the Leicester, Leicestershire and Rutland University College. (31) The Committee responsible for the appeal pointed out that 'To procure a University education a young man of Leicester or its neighbourhood must go away for three years.' This was considered wrong. The young men of Leicester 'should live in Leicester and yet learn all that Leicester requires of them.' The appeal document went on to point out that Leicester was the centre of the boot and hosiery trades, and that the purpose of the University College would be to provide advanced education in 'those branches of Technology that are vital to Leicester'. (32) The perspective was not, however, entirely parochial: the Appeal Committee also noted the need for education 'in the pure Sciences, in Arts and Economics, and in the fine Arts'. (33) The appeal was successful, and the first classes began on 4 October 1921, when nine students assembled in a former lunatic asylum. (34) Sixty years later, the

Vice-Chancellor stated firmly that 'the principal role of the University will continue to be a national one. Few undergraduates, or graduates, will be drawn from the East Midlands and most of the University's research will be nationally funded and without local connection.' (35)

Another important development in the period before the first world war was the establishment of state support for academic research; this came about largely through the efforts of Richard Burdon Haldane. Just after the end of the first world war, Haldane, together with H.A.L. Fisher, persuaded the Vice-Chancellors of British universities to do two things: to begin offering research degrees, in particular the Ph.D., and to establish the Committee of Vice-Chancellors and Principals. (36)

Thus by 1939 most of the familiar strands of British university life - general education, vocational training, research, and scholarship - had become woven together. (37) However, one particular strand needs to be examined in some detail: the University Grants Committee (UGC).

The University Grants Committee

As has been mentioned above, the first Government grant to the university colleges was made in 1889. The grants gradually increased in size, and various committees were formed to advise on their allocation. Finally, in 1919, the UGC was established. (38)

The original terms of reference of the UGC were 'To enquire into the financial needs of university education in the United Kingdom and to advise the Government as to the application of any grants that may be made by Parliament towards meeting them'. (39) In the first instance, therefore, the Committee was not set up to decide what universities should be doing - it was merely to consider what financial resources they needed in order to achieve their goals.

In 1946 and 1952 the Committee's terms of reference were amended. The words 'Great Britain' were substituted for 'United Kingdom' in the original terms of reference, and the following sentences were added:

> 'To collect, examine and make available information on matters relating to university education throughout the United Kingdom; and to assist, in consultation with the universities and other bodies concerned, the preparation and execution of such plans for the development of the universities as may from time to time be required in order that they are fully adequate to national needs.' (40)

The UGC's terms of reference thus imply that universities will have goals which are related to national needs, though presumably the universities may do other things as well; the terms of reference also make it clear that the UGC only 'assists' in making plans - it is not solely responsible.

The UGC has varied in size but it has usually consisted of about twenty members. In addition to a full-time chairman, there are currently eighteen members, of whom fourteen hold academic posts in universities. This heavy majority of university members dates from 1943; a precisely opposite policy obtained prior to that date. (41) In addition to the main Committee there are a host of sub-committees, covering most academic subjects, and the whole edifice is serviced by civil servants seconded from the Department of Education and Science. (42)

The UGC was originally appointed by the Treasury, the reason being that in 1919 the Committee was to adminster grants for the whole United Kingdom. The then Board of Education had power only over England and Wales; hence the Treasury was made responsible, almost by default. That situation continued until 1963, when it was decided that responsibility for the universities should be located in the same place as responsibility for

the rest of education. Once it is understood why the Treasury was involved in the first place it is difficult to view the transfer to the DES as having quite such sinister implications as have sometimes been read into it. (43)

Today the UGC has two main functions: to advise the Government on the financial needs of the universities, and to advise (effectively to determine) how the available grant is to be distributed to the individual institutions. These roles have developed over the years.

It seems clear that for several decades the Government accepted without question the UGC's estimate of the sum of money needed by the universities in each year. It was not until 1962 that the Chancellor of the Exchequer reduced the figure recommended, (44) and on that occasion the Government naturally claimed that there never had been any rule, written or unwritten, that whatever the UGC asked for should automatically be made available. (45) Any lingering doubt on the matter has long been dispelled: the UGC now gratefully accepts whatever it can get.

Once a total grant has been allocated, the UGC then turns to its second task, which is to distribute the grant to the various universities. Here too there have been changes. Once it was a convention that the universities could, within reason, do whatever they thought fit with the grant they received. This was made clear by a Treasury spokesman in 1946 and was endorsed by Lord Attlee in 1957. (46) Those days have passed. Beginning in the 1960s the UGC has laid down firmer and firmer 'guidelines' on how the money should be spent. (47) Theoretically, of course, universities still do not have to follow the UGC's advice; the UGC cannot make them do so - but it can make them wish that they had.

The UGC does not have to explain the reasoning behind its division

of the total grant, (48) and the Government, for its part, is happy to shelter behind the UGC. In 1962, for example, Mr. Henry Brooke refused to answer questions about the size of the UGC's grant to Keele, (49) and in 1981 Mr. William Waldegrave spoke of the Government's 'crucial policy decision not to try and interfere with the UGC.' (50) It is a cliché to say that the UGC is a buffer between the universities and state control, but the cliche seems to be true. In fact it has been argued by a former Chairman of the UGC that the UGC was forced to take up a more positive role in order to avoid direct control of the universities by the Government. (51) The present situation seems to be that the Government listens to the UGC on the question of how much public money should be allocated to the universities; but it also takes other soundings, and there is no question of signing an open cheque. Secondly, the Government then allows the UGC to distribute the funds as it thinks fit; but the Government keeps a very close eye on what is done with its funds and it also drops increasingly heavy hints as to what should be done. (52) This again may be defended as nothing new: in the 1960s it was made clear that the identification of national needs in higher education was a job for the government machine and not for the UGC. (53)

This brief consideration of the historical role of the UGC makes it clear that the Committee was not intended to determine ends. But it can, if it chooses, offer advice on ends, as well as on means, both to the Government and to the institutions. Given the UGC's role as paymaster, the universities are clearly going to be more easily influenced by such advice than is the Government.

Post-war developments prior to the Robbins Report

With the passing of the 1944 Education Act the Government became committed to education and a process began which ultimately, in 1963, integrated the universities into the education system as a whole. (54) The route to integration was signposted by a series of Government inquiries.

In 1945 the Report of the Special Committee on Higher Technological Education (the Percy Report) was published. This committee had been appointed to consider the provision of higher technical education in light of the needs of industry; it concluded that there were shortcomings in both the quality and quantity of technologists.

The year 1946 saw the publication of 'Scientific manpower', the report of a committee appointed by the Lord President of the Council (the Barlow Report). In effect this report determined post-war policy on university expansion. Its main recommendation was that universities should double their output of scientists, though not at the expense of the humanities. Other committees examined the manpower needs of education (the McNair Report), agriculture (the Loveday Report), medicine (the Goodenough Report), oriental languages (the Scarborough Report), and social studies (the Clapham Report). Successive Governments took heed: in 1938/39 there had been 50,000 students in universities, but by 1958/59 there were 100,000.

In 1951 a report on the the future of higher technogical education from the National Advisory Council on Education for Industry and Commerce was accepted by the Labour Government. Rather reluctantly, the Conservative Government which followed gradually became involved in industrial training, and in 1956 a White Paper on technical education proposed the establishment of Colleges of Advanced Technology, freed

from local control; these later became universities.

The years 1945 to 1963 saw a considerable growth in the number of universities as well as in the number of students. In the 1940s and '50s, charters were granted to former provincial university colleges at Nottingham, Southampton, Hull, Exeter, and Leicester. In the early 1960s, new universities were founded at East Anglia, York, Essex, Kent, and elsewhere. (55)

The pressures for expansion came from three main sources: from increased student demand; from the need to improve industrial and technological training; and from the recognition that much talent was being wasted. (56) The main motivation behind the increased demand was presumably the belief that a university degree would increase earning power; the need to double the output of scientists and engineers was argued by several reports, as stated above; (57) and the national waste of talent was highlighted by the Crowther Committee, which reported in 1959. (58)

Many of the universities founded in the post-war period retained their local and vocational inspirations. For instance, the 1948 Charter of the University of Nottingham states that the University should continue to pursue the objects of the University College: one of those was to provide students, 'especially those resident in the City of Nottingham and County of the said City' with 'such scientific technical and other instruction as may be of service in professional and commercial life.' (59) It has been argued, however, that the vocational emphasis in universities was at this stage half-hearted; (60) certainly it was still possible in the late 1960s, and common in practice, for many professional qualifications to be obtained without study at a university. (61)

The Robbins Report

In 1961 the Prime Minister appointed a committee, under the chairmanship of Lord Robbins, (62) to consider the pattern of full-time higher education in Great Britain. (63) The Committee's origins lay firmly in 'the growing realisation of this country's economic dependence upon the education of its population'. (64) The Committee's Report was presented to Parliament in 1963, to be followed in 1964 by twelve volumes of evidence and statistical data; and in the view of the Emeritus Professor of Higher Education in the University of London, the Report still constitutes 'the most massive attempt by a single nation, through a governmentally appointed committee, to consider how its higher education should be patterned and should develop.' (65)

The Robbins Committee did something extremely rare in British higher education: it began by considering 'aims and objectives - what purposes, what general social ends should be served by higher education?' (66)

The Committee decided that in a properly balanced system there were four aims or objectives (the words were used interchangeably). (67) These may be summarised as follows:

1. Instruction in skills suitable to play a part in the general division of labour. This was placed first not because it was considered the most important, but because the Committee thought it was sometimes ignored or undervalued. Twenty years later, that risk seems remote.
2. Secondly, the Committee argued that 'what is taught should be taught in such a way as to promote the general powers of the mind. The aim should be to produce not mere specialists but rather cultivated men and women.'

3. 'Thirdly, we must name the advancement of learning.' It is clear from the context that the advancement of learning, or the advancement of knowledge, means research. 'The search for truth is an essential function of institutions of higher education'.
4. 'Finally, there is a function that is more difficult to describe concisely, but that is none the less fundamental: the transmission of a common culture and common standards of citizenship.... Universities and colleges have an important role to play in the general cultural life of the communities in which they are situated.'

It is possible, indeed easy, to be critical of the terms in which these aims are expressed. For example, what precisely is meant by 'the general powers of the mind' or 'a common culture'? There is ample scope for debate about those phrases. But the critics are being decidedly ungrateful. Consideration of purpose is so rarely found in the literature of British higher education that the Robbins Report constitutes the most important statement of its kind until 1984.

The Report devoted considerable attention to the question of 'deep and broad courses', (68) and concluded forcefully that a much higher proportion of students should be receiving a broader education for their first degrees. (69) The large expansion of the universities which was recommended by the Committee would not have been proposed if the members had not been 'confident that it would be accompanied by a big increase in the number of students taking broader first degree courses.' (70) For better or for worse, that was not to be: the expansion took place, but the greater provision of broader courses did not. This means that, as Robbins himself pointed out nearly twenty years later, an essential condition of the Committee's major recommendation has not been fulfilled. (71)

The Robbins Report made 178 recommendations in all: most of them were not addressed to the Government but to universities and other educational institutions. (72) On a rough count, about 10 per cent of the recommendations were implemented, 10 per cent involved no change from the existing practice, and about 20 per cent have been partly implemented; the other 60 per cent have been forgotten. (73)

The most famous recommendation was the so-called 'Robbins principle': this was 'that courses of higher education should be available for all those who are qualified by ability and attainment to pursue them and who wish to do so.' (74) This was immediately accepted by the Government of the day and by the opposition parties, (75) and was adhered to by successive governments, at least until 1978. (76) Thus the Robbins Committee recommended, and for nearly twenty years British society accepted, that demand for higher education should govern supply. It is hard to think of any other field of activity in which this principle has been accepted by governments, on behalf of the taxpayers, and the situation therefore requires careful consideration - particularly as it must reveal, indirectly, a great deal about the assumed effects (and therefore, by implication, the goals) of higher education.

The Robbins Committee explicitly rejected the notion that the amount of higher education provision should be determined by estimates of the demand for particular skills, i.e. by the techniques of manpower planning; the technical difficulties involved in making quantified projections of manpower needs were considered too great. (77) Estimates of demand were considered more reliable. (78) Secondly, demand was accepted by the Committee as an appropriate means of determining provision because the Committee believed that modern societies could not achieve their aims of higher economic growth and higher cultural standards without making full use of the talents of their citizens. (79)

In accepting the Robbins principle, British governments, and the voters who elected them, must presumably have accepted these same arguments: in other words, they considered that the financial investment in universities was worthwhile in terms of its return, expressed both as economic growth and as an increased level of 'culture', 'civilisation', and 'education'. Little thought seems to have been given at the time, or later, to the fact that the volume and emphasis of research would effectively be determined by the whims of those who decided to seek a degree: perhaps it was just assumed by all concerned that this too would be a sound investment. The Robbins Committee also wished to see a higher proportion of students on science and technology courses: but student demand has ensured that many of the extra places have been in the social sciences and the arts. (80)

The impact of the Robbins Report was great. Both the public and the politicians were convinced that an expansion of higher education was desirable, (81) and it duly took place. Nine Colleges of Advanced Technology were given university status. (82) It can be argued that the expansion in Britain would have occurred at that period even without a Robbins Report, as it did in most other European countries, (83) but the case is not convincing.

Perhaps the most important point of all, however, is that the Robbins Report proposed that higher education should be dominated by an enlarged university section which was beyond the direct control of any minister or elected authority; and it has been alleged that the Department of Education and Science was appalled by this prospect. (84) Whatever the truth of the matter, it is certainly true that it was not long before central authority made an attempt to gain an increased measure of control over the management of higher education.

The binary policy

In August 1982 an editorial in The Times Higher Education Supplement stated that the binary policy is 'the nearest thing we have to an authoritative statement about the purposes of higher education.' (85) In October of the same year another editorial in the same journal stated that 'Far from being an administrative irrelevance, structure is a powerful metaphor about the public purposes of higher education.' (86) It will be as well, therefore, to examine carefully the binary policy, the structure which it involves and the purposes which it implies.

The Robbins Report of 1963 recommended a unitary system of higher education. (87) In 1965, however, the unitary concept was decisively rejected by the Secretary of State for Education, Mr. Anthony Crosland. In a famous speech on 27 April 1965, at the Woolwich Polytechnic, Crosland announced the creation of what he first described as the dual system, and in a subsequent speech as the plural or binary system. (88)

The binary system involved the creation of a separate sector of higher education in addition to the universities. The new sector would be headed by the polytechnics, and would include the teacher-training colleges and various other technical colleges. (89) The universities would continue to be independent, autonomous bodies financed through the UGC and awarding their own degrees; the polytechnics would be financed through, and under the control of, the Local Education Authorities, and their degrees would be validated by the Council for National Academic Awards. (90) A few years later, when Mrs. Margaret Thatcher became Secretary of State, she confirmed that the binary policy was bipartisan, (91) and it has continued to this day.

No one who reads Crosland's Woolwich speech can be left in any

doubt about the two essential ideas behind the creation of the binary policy: governmental control and vocational education. Control was to be located close to the provision: Crosland claimed that it was a valuable feature of our democratic tradition that elected representatives and local authorities should have a stake in higher education. (92) Evidently the Government considered that control was necessary because British universities were, and still are, exceptionally autonomous by comparison with those in other countries. (93) Control was to be achieved through the method of financing; this, according to one very experienced academic (Lord Annan), is in fact the only way in which the policy of a central government can be imposed in the field of higher education. (94)

The need for vocational, professional and industrially based courses was the other key factor mentioned by Crosland. He claimed that the demand for such courses could not be fully met by the universities, but it must be fully met 'if we are to progress as a nation in the modern technological world.' (95) The universities, it was implied, were not sufficiently responsive to national needs.

Now that the binary policy has been in effect for nearly twenty years, it is relevant to inquire whether there are in fact any major differences between the universities and the flagships of the binary system, the polytechnics. It has often been pointed out that the polytechnics' original terms of reference were ambiguous, nebulous or non-existent. (96) However, by 1970 the CVCP had decided that universities and polytechnics had essentially different purposes. Polytechnics were comprehensive institutions combining a certain number of first-degree courses with teaching at a variety of other, non-degree, levels on a full or part-time basis; they concentrated on vocational training. Teaching in universities, on the other hand, was concentrated almost entirely on degree-level courses and was spread over a much broader subject range;

the teaching in universities was also enhanced by the deep involvement of academic staff in research. (97) Ashby, in 1976, declared that universities were concerned with education, polytechnics with instruction. Education involved skill with ideas; instruction involved skill with things. (98) By 1981 the DES had decided that the universities' distinctive characteristic was their contribution to wholly new knowledge through research; a polytechnic's key contribution lay 'in its provision of courses specifically designed to reflect the opportunities and requirements of the country's employment market'. (99)

Whether these distinctions are valid is a moot point. Lord Robbins pointed out with some perplexity that the universities are heavily involved in vocationally orientated courses. (100) Furthermore it is not obvious that the University of Bath has a less vocational orientation than, say, Bristol Polytechnic. As for research, the Council for National Academic Awards certainly expects the polytechnics to conduct some research, even if their financing does not include any element for its background support. (101) At least one former Vice-Chancellor has concluded that the only valid definition of the difference between universities and polytechnics 'relates to the constitution or legal status of the institution'. (102) And that perhaps, is the key: because the legal status of an institution is a major factor in determining whose goals it is that the institution shall pursue.

The 1960s and '70s

It can be argued that the student unrest of the late 1960s had a vital bearing on the goals of British universities. (103) For a year or two the newspapers and television screens regularly provided pictures of students rioting, supporting extreme causes, and generally putting forward

their views in a vigorous, not to say aggressive, manner; such disturbances occurred in most countries in the western world. Whatever the rights and wrongs of the issues, the fact is that the universities received a great deal of unfavourable publicity, (104) and they were not able to respond to it by putting forward a unanimous, reasoned case for continued public support. (105)

The 1960s and '70s also saw the publication of some further important reports. In 1968 the Dainton Report appeared; this was the findings of a committee set up to examine the swing away from science in schools. The Report recommended less specialisation and more mathematics in sixth forms; it was quietly resisted in all quarters. (106)

In 1972 a committee under the chairmanship of Lord James reported on teacher education and training. The Committee's conclusion was that all teachers should be graduates, having undertaken a minimum four-year course.

The James Report was closely followed by the Government's 1972 White Paper, entitled Education: a framework for expansion. The White Paper proposed an impressive expansion of full-time higher and further education over the following ten years, albeit with a lower unit of resource from Government sources. Expansion, however, was not to be confined to the universities: the intention was that the number of students in non-university institutions would ultimately equate with the number in the universities. In the event, expansion has not occurred to the extent proposed, and the non-university institutions do not quite contain half the students in higher education. The White Paper also prepared the way for the closure of many colleges of education and the conversion of many others into institutions of higher education offering degrees validated by other bodies. (107)

The cuts of 1981

In 1981 the Government announced that it intended to reduce substantially its expenditure on the universities, (108) and the UGC was faced with the problem of allocating a much reduced grant. After years of expansion, or at worst a period of standstill budgets, the effect of the cuts was traumatic. Universities protested bitterly but there were few sympathisers.

It has to be remembered that by 1981 public opinion had changed, and not only as a result of the student unrest. Higher education had been held up by the Robbins Report and by politicians of the 1960s as a solution to many social ills and needs: but by 1981 it could be argued that the system had failed to deliver, and the atmosphere was right for money to be saved. (109)

Sir Edward Parkes, who was Chairman of the UGC in 1981, has noted that the Government which was elected in 1979 'had no clearly developed philosophy with regard to higher education, but it did come in with a commitment to the reduction of public expenditure.' (110) A Government spokesman declared that the impact of the world recession had been severe, and the sole reason for the 1981 cuts was to save money, not to punish the universities for having failed in some way. (111) There was a secondary aim or requirement, however: it was to adjust the university system 'in favour of science and engineering.' (112) Sir Keith Joseph assured the House of Commons that 'Few Members of Parliament would disagree with the modest move from the arts towards science, technology and engineering.' (113)

The actual implementation of the cuts was left to the UGC, which chose to apply them selectively. Towards the end of 1981 the UGC explained to the House of Commons Select Committee on Education,

Science and Arts how it had made its cuts in July of that year. (114) It had considered various options, such as equal percentage cuts for all, and reducing the number of institutions receiving grants (which would effectively have closed the ones left without support); it had also considered setting up a tiered system, with some universities funded for research and other financed principally as teaching institutions. These options were all rejected in favour of selectivity. Cuts of varying size were made in the light of certain criteria. Of these criteria the most important were probably the numbers of research students, research income, the quality of the student intake, and the relative cost of departments as an indicator of efficiency. (115) Less popular courses were rationalised so that they were available somewhere but not everywhere, and a fall of from 3 to 5 per cent in the number of students, over three years, was to be linked with an increase in the numbers reading mathematics, physics, business studies, medicine, engineering and technical subjects. (116)

Opposition to the cuts was at first loud but was ultimately muted, even within the university system. After the dust had settled, The Times Higher Education Supplement concluded that the absence of a really concerted opposition reflected 'a fundamental disagreement about values and priorities.' (117)

What were the effects of the cuts? First of all it is doubtful whether much money has actually been saved, at least in the short-term; (118) scientific research, it is claimed, has been dealt a major blow in that the cuts have damaged the universities' ability to provide basic facilities; (119) and a large number of academic staff have taken early retirement on generous terms. The Government's supporters can point to some allegedly beneficial outcomes. The admission of fewer students means that those with marginal abilities have been turned away, and

research priorities have been tightened up in favour of relevance. (120)

Whatever the balance of advantage and disadvantage, one thing is clear: it is that in 1981 the Robbins principle, that all those suitably qualified should have the right to higher education, was ignored if not abandoned. The principle had formed the sole basis of successive governments' 'policy' on higher education for twenty years. But as Lord Robbins himself pointed out in the autumn of 1981, 'the recent instructions of the University Grants Committee, in the past so admirable, are a complete reversal of this principle.' (121) In 1984 and 1985 attempts were made to reformulate a policy for access to higher education, and that debate will be considered in Chapter Fourteen.

The Leverhulme Inquiry

The Leverhulme Inquiry into the future of higher education was organised by the Society for Research into Higher Education with the aid of a grant from the Leverhulme Trust. (122) The Inquiry began in 1981 and lasted two years; it took the form of eight seminars at which over 70 papers were presented and it generated ten monographs and a final report. (123)

Such a volume of print cannot be summarised in a few paragraphs, but four major strands of opinion can be detected in it. (124) The first is a belief that there is an urgent need to widen access to higher education, not only on the grounds of social justice but also in the interests of economic efficiency.

The second major theme is the need to reform the content and structure of courses. A system of two-year ordinary degrees was proposed, topped up with a variety of vocational diplomas and academic courses. It was argued that the domination of the system by specialised

three-year honours degrees should be ended by the introduction of broader forms of undergraduate education; these would be more easily modified in the light of changing manpower needs.

The third Leverhulme theme is an endorsement of the broad intentions of the binary policy because they safeguard institutional diversity. The final report strongly emphasised the value of diversity. It did not favour a merger of the University Grants Committee and the National Advisory Body, which co-ordinates policy in local authority higher education; it did, however, advocate the establishment of an overarching advisory body and a higher education policy studies centre.

The fourth theme is the need for more professional management, as a part of which institutions were encouraged to draw up mission statements.

The Leverhulme Inquiry undoubtedly represents an important landmark in higher education; in the twenty years since Robbins only the 1972 White Paper rivals it. But the Inquiry had inherent limitations: for example, it was always concerned with means, rather than ends; it did not attempt to reformulate the Robbins Report's statement about aims and the monographs contain comparatively little about values. (125) For the purposes of this thesis the Leverhulme study provides few ideas which were not already available elsewhere. The final report also had the misfortune to be published 13 days before a general election, which muted its impact.

The position in the mid 1980s

The universities stand at the peak of the British system of education and exercise a profound influence over the rest of it. The present size and nature of British universities can be summarised with a few statistics.

In 1957 there were only 24 institutions on the UGC list; by 1982 there were 53. (126) In 1957/58 there were 97,000 full-time students in British universities; ten years later there were 205,000, and in 1983/84 there were 309,000. (127) There are now about 553,000 full-time students in higher education as a whole. (128)

About half the students in universities are studying science-based subjects, and a substantial proportion of arts-based students are taking courses in such vocational subjects as accounting, law, business and management studies. (129) The professional institutes have a significant influence over the curriculum of many degree courses. (130)

The universities currently have a multi-purpose role: they provide general education; they undertake research; they train students for the professions; they assist industry, commerce and the public services; and they make a contribution to the arts. (131) Nearly two thirds of all graduates entering permanent employment in this country go directly into industry and commerce. (132)

In practice the Government dominates the universities. The editorial columns of the The Times Higher Education Supplement have noted that when the present Secretary of State addresses the Chairman of the UGC he does so in the tone of a master addressing his servant. (133) This situation arises from the fact that 60 per cent of universities' total income comes in the form of a block grant from the Government; (134) much of the universities' remaining income also comes from the taxpayer in one form or another.

In November 1983, the Chairman of the UGC, Sir Peter Swinnerton-Dyer, sent a questionnaire to all universities. (135) The replies were considered during the course of 1984 and in September of that year the UGC presented its advice to the Government on a strategy for higher education into the 1990s. One of the questions in Sir Peter's letter

(number 14) asked whether there is an essential difference in function between the universities and other institutions of higher education. This was, in a sense, an enquiry about goals, and one university at least declined to answer it. (136) On the whole, however, the questionnaire did not venture into fundamental questions about the purpose of higher education, and Sir Peter declared himself 'wholly unrepentant' when challenged on that issue. (137) Nevertheless, in the course of preparing its strategy document the UGC did for the first time issue a statement about goals; that statement is the most important of its kind since the Robbins Report, and it will be considered in more detail in Chapter Eight. Two other important documents which were published in 1985 will also be considered later in the thesis. They are the Jarratt Report and the Government's Green Paper on higher education; these will both be discussed in Chapter Fourteen.

Conclusions drawn from the history of British universities

This chapter has reviewed the goals which were envisaged for British universities both at the time of their foundation and subsequently. The evidence suggests that the principal conflict in the area of goals has been between the supporters of vocational and non-vocational higher education. This is not surprising in view of the two contrasting philosophies of higher education which were discerned in Chapter Two.

It has been suggested by a number of commentators that universities have usually succumbed to 'academic drift'; that is to say, they have started out as vocational institutions and have gradually lost interest in the real world. (138) Those who make this charge regard the tendency as a regrettable one. Universities have, however, been defended in this respect. Scott, for example, claims that technological subjects and the

applied social sciences were not forced on universities by the state; the universities adopted them voluntarily. Similarly the enthusiasm for applied as opposed to pure research is not confined to industrialists; (139) many academics prefer to work in this field.

Whatever the truth of the matter, the tension between the vocational and the non-vocational is clearly apparent. The CVCP, in its response to the 1983 UGC questionnaire, took up the issue in no uncertain manner. Noting that the Secretary of State wished to see a shift towards 'vocationally relevant forms of study', the CVCP stated that this represented 'a view of society which we cannot share. There can be no doubt that the ultimate goal is to establish and maintain an economically successful society, but it is vital that that society is one of whose culture, in the widest sense, we can all be proud.' (140)

A less pronounced conflict is apparent over the question of broad-based degree courses as opposed to specialised courses. Both the Robbins Report and the Leverhulme Inquiry called for broader forms of undergraduate education: the response appears to have been lukewarm at best.

Research is much less controversial: historically there has been a gradual acceptance of research as a university function, and only in the past ten or fifteen years has there been much discussion as to whether it should be pure or applied.

The only other points which need stressing are the massive growth in the numbers of students and institutions which has taken place over the centuries, particularly since 1945, and the concomitant change in the universities' clientele. From the thirteenth century to the early sixteenth, the universities were primarily professional schools catering to the needs of the church. (141) In the early sixteenth century a major change took place: in effect, the profession of common law was abolished,

and universities began to cater for laymen as well as clerics. Even so, entry to higher education was almost entirely confined to the sons of the land-owning aristocracy. (142)

In the seventeenth century, some philosophers, such as Comenius, began to argue in favour of education for all, regardless of birth or wealth, (143) but the impact on British society was minimal. Even in the nineteenth century Oxford and Cambridge were essentially finishing schools for the children of the governing classes, with a smug Anglican bias. (144)

After the 1914-18 war the picture began to change, and the impact of the war can scarcely be over-rated: it marked the end of the aristocratic tradition in England. (145) In 1920 state scholarships and county awards were instituted, and gradually boys from lower-middle and working-class homes began to enter the universities. Women, too, were admitted in greater numbers. The University of London had allowed women to take its degrees from 1878, but there had been much scorn and obstruction; (146) similarly it was not until 1947 that Girton and Newnham were accorded a status similar to that of the men's colleges at Cambridge, and at Oxford the change was delayed until the 1960s. (147)

In the 1950s the desire for equality of opportunity gathered strength, and the Robbins Report highlighted the gap between the proportion of children from professional families entering higher education and those from skilled manual families. (148) In fact, the working-class share of entry to the universities did not rise in the twenty-five years after the 1944 Education Act. (149) Nor has the situation changed much since: indeed the Leverhulme Inquiry drew attention to a marked decline in working-class students in universities. (150) The participants in the Leverhulme discussions argued that there are still vast reserves of underdeveloped talent amongst children from working-class homes; they

drew up a strategy which was intended to encourage access from a rather broader social spectrum than is the case at present. (151)

The overall growth in the numbers of students and institutions in the post-war period tells us that much was expected of higher education; the present slight flattening in demand, coupled with the public acceptance of a reduction in university resources, tells us that many of those expectations have now been modified. Part Two of the thesis will therefore examine in detail the views on universities which have recently been expressed by the interested parties.

NOTES ON CHAPTER FOUR

1. Those who seek a potted history of British universities might consider Mountford (1966), supplemented by Robbins (1980). Ross (1976) provides a very readable account of the development of universities from an international perspective.
2. University of Wales (1964), page 151.
3. Robbins (1963), page 6; also Robbins (1980), page 4, and Dainton (1981), page 3.
4. Chaplin (1978), page 3208.
5. Caine (1969), page 26. Also Robbins (1980), page 4.
6. Scott (1981a), page 24.
7. Caine (1969), page 26. Also Ashby (1966), page 6.
8. Ashby (1966), page 29.
9. Sanderson (1975), page 80.
10. Ashby, quoted by Silver (1981), page 6.
11. Barnett (1979), page 123.
12. Caine (1969), page 27.
13. Robbins (1963), page 23.
14. Mountford (1966), page 21.
15. Ibid., page 22.
16. Halsey and Trow, page 54.
17. Dainton (1981), page 3.
18. Beard, Healey and Holloway (1970), page 27, and Ashby (1966), page 18.
19. Ashby (1966), page 40.
20. Ashby (1974), page 5.
21. Chaplin (1978), page 3216.
22. Ashby (1974), page 5.

23. Mountford (1966), page 26.

24. Ibid., page 20.

25. Dainton (1981), page 5.

26. Silver (1981), page 63.

27. Robbins (1963), page 23.

28. Barnett (1979), page 124.

29. Halsey and Trow (1971), page 57. Also Entwistle, Percy and Nisbet (1971), page 21.

30. University of Wales (1964), page 151.

31. Leicester, Leicestershire and Rutland University College (1920).

32. Ibid.

33. Ibid.

34. University of Leicester (1981), foreword by the Vice-Chancellor.

35. Ibid.

36. Dainton (1981), pages 5 and 6.

37. Ibid., page 6.

38. Owen (1980), page 256.

39. Ibid., page 255.

40. Ibid., page 263.

41. Ibid., pages 261 and 262.

42. Committee of Vice-Chancellors and Principals (1978), paragraph 60.

43. Owen (1980), pages 258 and 259. Barnes (1973) regards the change as significant: see page 161.

44. Barnes (1973), page 161.

45. Owen (1980), page 273.

46. Barnes (1973), page 160.

47. Ibid., page 162. See also the UGC's Annual Report for 1968/69, quoted in Committee of Vice-Chancellors and Principals (1978), paragraph 128.

48. Owen (1980), page 273.

49. Ibid.

50. Footman (1982), page 4.

51. Sir John Wolfenden, quoted by Owen (1980), page 275.

52. Crequer and Jones (1982) describe a row about teacher-training quotas, 'the first illustration of the Government's new resolve to direct UGC policy.'

53. Owen (1980), page 269.

54. The summary of government inquiries etc. in this section is derived from MacLure (1973).

55. Halsey and Trow (1971), page 58.

56. Hall, Land, Parker and Webb (1975), page 233.

57. Ibid.

58. Ibid., page 234.

59. Letter from the Registrar of the University of Nottingham, to the author, 26 January 1982.

60. Caine (1969), page 30.

61. Ibid., page 31.

62. Robbins (1963), title page.

63. Ibid., page 4.

64. Ibid., page 5.

65. Niblett (1981), page 1.

66. Robbins (1963), page 6.

67. Ibid, pages 6 and 7.

68. Ibid., page 91.

69. Ibid., page 93.

70. Ibid., page 269.

71. Robbins (1980), page 23. He repeated the point in a comment on the 1981 cuts, reported in The Times Higher Education Supplement, 16 October 1981, page 13.

72. Carter (1983), page 11.

73. Williams (1972), page 18.

74. Robbins (1963), page 8.

75. Robbins (1980), page 23.

76. Department of Education and Science (1978), page 1.

77. Morris, Woodhall and Westoby (1977), page 48.

78. Strickland (1982), page 115.

79. Bevan (1983), page 443.

80. Scott (1983b), page 10.

81. Williams (1972), page 18.

82. Aston, Bath, Bradford, Brunel, Chelsea, City, Loughborough, Salford and Surrey. Halsey and Trow (1971), page 58.

83. See Elton (1983), page 125.

84. Annan (1983), page 11.

85. Scott (1982a), page 24.

86. Times Higher Education Supplement (1982a), page 32.

87. Robbins (1980), page 99.

88. Weaver (1983), page 14.

89. Robbins (1980), pages 99 and 100.

90. Lowe (1973), pages 116 and 117.

91. Weaver (1983), page 14.

92. Ibid.

93. Scott (1983b), page 32. This diagnosis is confirmed by Jadot (1981), page 57, and Clark (1979), page 30.

94. Annan (1983), page 14.

95. Crosland, quoted by Bevan (1983), page 444.

96. Silver (1981), page 50.

97. Committee of Vice-Chancellors and Principals (1970), page 6.

98. Ashby (1976), page 24.

99. Quoted by the Committee of Vice-Chancellors and Principals (1984), page 9.

100. Robbins (1980), pages 100 and 101.

101. Points made by Fowler (1982), pages 131 and 137.

102. Carter, quoted by Burgess (1981), page 190.

103. See Ross (1976), page 139.

104. The only thing most people can remember about the University of Stirling is that a student insulted the Queen by drinking from a wine bottle as she walked past him.

105. Ross argues that in the late 1960s 'determining the purpose of the university was a major and serious problem for the English academic system.' Ross (1976), page 139.

106. MacLure (1973), page 327.

107. This account of the 1972 White Paper is derived from Evans (1978).

108. In his circular letter 10/81, sent to all universities on 1 July 1981, the Chairman of the UGC stated that the overall loss of recurrent resources between 1979/80 and 1983/84 would be between 11 and 15 per cent. In December 1981 the House of Commons was told that £200 million a year would be saved out of a total recurrent grant of about £1 billion. Hansard, 21 December 1981, page 766.

109. Buss (1975), page 431.

110. Parkes (1983), page 2. In its brief for the Expectations of Higher Education Project, the DES itself declared that the 1980s would mark a change from provision determined largely by student demand to provision which would be 'expenditure led'. See Kogan and Boys (1983), page 1.

111. Footman (1982), page 7.

112. Hansard, 18 November 1981, page 301.

113. Ibid., page 305.

114. The evidence is reported by Crequer (1981).

115. An assessment by Dr. Bryan Taylor, Planning Officer at the University of Bath.

116. David (1981a).

117. Times Higher Education Supplement (1984c). Although public interest in the cuts soon died down, the universities themselves did not forget or forgive. In 1984 they took advantage of the Swinnerton-Dyer questionnaire to give vent to 'widespread and trenchant criticism of the UGC.' See Times Higher Education Supplement (1984c).

118. Kogan (1983) argues that 'it is uncertain whether the policy saved money - and, if so, how much.'

119 Silcock (1984).

120. These 'benefits' are those claimed by the Times Higher Education Supplement (1984d) in an editorial.

121. Robbins (1981).

122. Times Higher Education Supplement (1983a).

123. Scott (1983d). The various publications are referred to collectively as the 'Leverhulme Report' and are listed under that heading in the references section.

124. Times Higher Education Supplement (1983b).

125. A point made by Scott (1983d).

126. Scott (1983a). The 1985 Green Paper (paragraph 4) states that there are 46 publicly funded universities, 29 polytechnics, 73 colleges engaged mainly in higher education, and 298 other colleges.

127. Ibid. Numbers rounded off to the nearest thousand.

128. Department of Education and Science (1983b), page 3.

129. Committee of Vice-Chancellors and Principals (1981), page 4.

130. The influence of the professional bodies will be discussed in Chapter Eight.

131. Association of University Teachers (1979), page 1.

132. Committee of Vice-Chancellors and Principals (1981), page 4.

133. Times Higher Education Supplement (1983c).

134. Beverton and Findlay (1982).

135. Swinnerton-Dyer (1983).

136. This was the University of Bristol. See University of Bristol (1984), page 3.

137. Crequer (1984).

138. See, for example, Burgess (1979), Fowler (1982), and Pope (1979).

139. Scott (1983e).

140. Committee of Vice-Chancellors and Principals (1984), page 1.

141. Kearney (1973), page 2.

142. Ibid., page 3.

143. Chaplin (1978), page 3211.

144. Green (1969), page 101.

145. Kearney (1973), page 9.

146. Green (1969), page 120.

147. Ibid., page 127.

148. Ibid., page 126.

149. Leverhulme Report, final volume (Excellence in diversity), page 41.

150. Leverhulme Report, volume 2 (Access to higher education), page 2.

151. Leverhulme Report, final volume (Excellence in diversity), page 4.

PART TWO

CHAPTER FIVE: THE METHODOLOGY OF PART TWO

The main aims of Part Two are to determine the extent to which stakeholder groups have formally considered what the goals of British universities should be, and to identify areas of actual or potential disagreement, both within and between groups.

This chapter records the methods used to obtain the information which is summarised in the remainder of Part Two. Chapter Six describes the American approach to university goals, which is contrasted with the British approach (Chapter Seven). Chapter Eight records the results of research undertaken to establish what views have been expressed on goals by the universities themselves and by the principal stakeholder groups. In the last two chapters in Part Two, a catalogue of potential goals for British universities is provided, and six issues which are currently controversial are discussed.

Sources of information on British universities

In December 1981 a letter was sent to the Registrars of all British universities, as listed in the 1981 edition of the Commonwealth Universities Yearbook, (1) asking for a copy of any formal statement of the overall goals of their institution. The letter was accompanied by a covering note from the then Secretary and Registrar of the University of Bath, Mr. G.S. Horner, asking his colleagues to assist despite 'all the trials and tribulations of the present time', i.e. the effects of the 1981 cuts. A copy of both letters can be found in Appendix Two.

Sources of information on polytechnics

At the outset of the research it was considered possible that British polytechnics might have drawn up more formalised statements of their goals than had the universities; it was also considered that such statements might be useful for purposes of comparison. Letters were therefore sent to the chief administrative officers of a random sample of one third of the polytechnics, asking for information on this point. A copy of the letter can be found in Appendix Three. Names and addresses were taken from the Education Authorities Directory. (2)

Sources of information on American universities

It was observed during a visit to the United States in 1979 that many American universities appeared to have drawn up relatively elaborate and detailed 'mission statements'. In order to confirm that this impression was correct, letters of inquiry were sent in January 1982 to a random sample of 20 American universities. The sample was drawn from a standard reference book on American colleges and universities (3) and consisted of a mixture of state-funded and private institutions. A copy of the enquiry letter can be found in Appendix Four.

The literature search also provided an abundance of information on goal statements by American universities.

Sources of information on stakeholder groups

The literature search provided useful information on the views of university stakeholders. To supplement this information, and in order to ensure that no formally (or informally) expressed views were overlooked,

letters of inquiry were sent to appropriate officers of all organisations judged to be relevant, as follows:

The Gallup Poll organisation

Confederation of British Industry

Standing Conference of Employers of Graduates

The political parties:

Conservative

Labour

Liberal

Social Democratic

Department of Education and Science

Committee of Vice-Chancellors and Principals

Association of University Teachers

National Union of Students

A copy of a typical enquiry letter is included in Appendix Five.

In addition, at least one representative of each stakeholder group was interviewed about the group's attitude to goals. The interviews at this stage of the research were only loosely structured, with the nature of the questions varying from group to group, as appropriate. At a later stage of the research it became possible to adopt a more consistent pattern: details are given in Part Four. A full list of those interviewed is provided in Appendix One. During visits to the United States in 1979 and 1981 the opportunity was taken of interviewing staff at a number of American universities. Two officers of the Educational Testing Service (ETS) in Princeton were also interviewed. The ETS is undoubtedly the world centre for research into the measurement of opinions on goals, as will be described in the following chapters. It is indicative of the extent of British interest in this topic that the author of this thesis was the only member of staff of a British university who had ever visited the ETS to discuss goals.

NOTES ON CHAPTER FIVE

1. Association of Commonwealth Universities (1981).
2. School Government Publishing Company (1981).
3. American Council on Education (1980).

CHAPTER SIX: THE AMERICAN APPROACH TO UNIVERSITY GOALS

In the course of earlier research into the resource-allocation procedures of British and American universities, (1) it was observed that the goals of American universities are frequently defined in writing. The literature search undertaken for this thesis confirmed that American researchers have studied the question of university goals in depth. The purpose of this chapter is therefore to examine the three most important aspects of the American approach to goals. These aspects are: the awareness in American universities of the need to establish goals; the research into the measurement of opinions on goals which has been carried out in the United States; and the mission statements which have been drawn up by a number of American universities. In the next chapter the American approach to goals will be contrasted with the British.

The information contained in this chapter was obtained partly from published material, partly through correspondence and partly by interview.

American awareness of the need to establish goals

For at least two decades, many American universities have been required by law to state their goals and objectives. (2) The laws which various states have imposed were inspired by a belief that clear thinking about goals is advantageous. Once in existence, the laws created an atmosphere in which goal-setting became a matter of habit; the habit has persisted even in those cases where the legal requirement has lapsed.

In August 1965 President Lyndon B. Johnson ordered all the major civilian agencies of the federal government to install a 'very new and very revolutionary' Planning, Programming and Budgeting System (PPBS).

(3) Many states, notably California, followed the federal example and imposed PPBS on all state agencies, including institutions of higher education. In 1969 the US Office of Education funded a major PPBS development programme in thirteen western states; this programme later developed into the National Center for Higher Education Management Systems. (4)

Despite President Johnson's statement to the press, PPBS was neither very new nor very revolutionary. It emerged from conceptual work undertaken by the Rand Corporation after World War II (5) and was first applied, with considerable success, in the US Department of Defense. There never was a standard version of PPBS, but the essential point to be noted is that the first stage of the procedure, in every instance, required the organisation to define its mission and objectives. (6)

After a few years it became obvious that although PPBS had numerous virtues, it also had defects. It was an excessively complex procedure which consumed huge amounts of staff and computer time. (7) It had been possible, within limits, to quantify the outputs of the Department of Defense (tanks and ships, for example), but the quantification of the outputs of education proved to be a much more difficult task. (8) In 1971 the federal government abandoned the requirement for budget submissions to be made in the PPBS form, though agencies could continue to use it if they so wished. (9) In 1973 the State of California followed suit, thus discarding seven years' development of PPBS at a cost of several million dollars. (10)

PPBS was, in a sense, succeeded by Management by Objectives (MBO), though fewer institutions of higher education adopted it. (11) MBO for higher education was developed by Dean George Odiorne at the University of Utah from principles expounded by Drucker. (12) Again, there was and is no standard system of MBO, (13) but all the variations

involve not only the clarification of an organisation's goals, but also the setting of quantified objectives in the form of standards of performance, right down to the individual level. (14) It is assumed in MBO that if a person has a clear, quantified description of what he or she is trying to achieve, the chances of success in achieving the stated objective are greatly increased. (15)

MBO was adopted at about the end of the 1960s by a number of American colleges and universities, notably the University of Utah and the University of Tennessee. (16) These institutions were at first enthusiastic, (17) but difficulties with the system emerged after a number of years' experience. (18) Davies argues that MBO may have come too close to 'the sensitivities of the academic'. (19) In any event, MBO did not prove to be the magic formula which some had hoped, and by the mid 1970s a new system was being talked about: zero-based budgeting. This third system required that the goals and objectives of an organisational unit should determine its budget - and not the converse. (20)

The point to be noted here is that for at least twenty years American universities have been obliged both by law and by logic to consider their goals and objectives in detail.

American research into the measurement of opinions on goals

Once it became recognised in American universities that it was important to clarify goals, it was not long before attempts were made to establish whether members of particular groups held similar views, and if so whether those views differed from the opinions of other groups. The seminal work in this field was carried out by Gross and Grambsch and was reported in their book University goals and academic power, published in 1968. (21)

Gross and Grambsch surveyed samples of faculty and administrators at 68 universities, using an inventory containing 46 goal statements. The survey was carried out in 1964. (22) It distinguished between 'output goals', defined as those which involved a product of some kind, and 'support goals', which were the ends envisaged by persons responsible for service activities. Each respondent was asked to indicate, on a five-point scale, how much emphasis he felt a given goal actually received at his institution, and how much it should ideally receive. (23) The questionnaire was expected to take a minimum of an hour and a half to complete; some respondents took three hours over it. (24)

The work of Gross and Grambsch is important in that it alerted researchers and others to the possibility of systematic, quantitative analysis of opinions on institutional goals. (25) The results of the survey cannot easily be summarised, and need not be, since they relate to American universities of twenty years ago: in essence, however, the survey provided 'no flattering picture of the ability of university faculties to agree on the aims and purposes of higher education.' (26)

In 1971 Gross and Grambsch repeated their 1964 study in order to determine what changes had taken place in the seven-year interval. In general, very few differences were observed. American universities remained fundamentally the same: that is to say they were still institutions orientated chiefly towards 'research and scholarly production, set up to provide comfortable homes for professors and administrators, and according students and their needs a distinctly secondary position.' (27)

In 1973 the Carnegie Commission on Higher Education published a three-part report on The purposes and performance of higher education in the United States. (28) This was a much fuller consideration of aims than that provided by the approximate British equivalent, the Robbins

Report, and it gave further impetus to the academic study of goals.

At much the same time as the Carnegie Commission's publication was being prepared, a group of staff at the Educational Testing Service in Princeton were preparing the Institutional Goals Inventory (IGI); (29) this is the most elaborate instrument for the measurement of opinion on the goals of higher education which has so far been devised. Its purpose is to measure the opinions of stakeholder groups on the questions of how important certain goals actually are within the institution, and how important respondents think the goals should be.

The ETS's original concern was with institutional evaluation; however, the researchers decided that if there was to be any systematic assessment of an institution's success, there first had to be a clarification of the organisation's goals. (30) The planning of an institutional goals inventory began in 1969, and after a number of experiments an instrument was published in 1972 which has subsequently been widely used.

The basic version of the IGI consists of 90 statements of possible institutional goals. The statements cover 13 'outcome' goals and 7 'process' goals; completion of the questionnaire is expected to take about 45 minutes. Respondents are invited to state how important each goal actually is in their institution, and how important it ideally ought to be. (31) In 1979 and 1980, the IGI was adapted to produce the Community College Goals Inventory and the Small Colleges Goals Inventory. (32) A Canadian IGI is available in both French and English, and versions have also been prepared for use in Saudi Arabia and Thailand. (33)

By 1977 about 350 institutions had made use of the IGI. (34) In 1972, in one study alone, it was administered to 24,000 respondents in 116 colleges and universities in the State of California; (35) a volume of comparative data has been published. (36)

The IGI inspired a number of other researchers, and attempts were

made to take the consideration of goals still further. Romney, for example, tried to assess the opinions held by various groups on the appropriate criteria for assessing progress towards given goals. (37) Butler tried to establish what use the institutions actually made of the IGI results, once they were available. (38)

Butler's work, in fact, reaches to the very heart of the matter. The statistics about the widespread use of the IGI are not in themselves important: the important question is, have the results been of value? Have all those diligent respondents, putting ticks in boxes for 45 minutes, been doing anything useful? The answer is affirmative, but not without qualification.

It is undoubtedly valuable for an institution's decision-makers to know the extent to which certain groups of stakeholders agree or disagree on what the goals of the institution are or should be. But a high level of agreement within a group or between groups does not necessarily mean that those goals are the 'right' goals, however 'right' may be defined; with several years' hindsight, it might well become clear that the goals which once commanded wide support were not 'right' at all. Similarly, the demonstration of a high level of disagreement does not suggest any means for resolving the differences, or even, necessarily, that they need to be resolved.

Fenske has suggested that goal studies are often seen as worthy but impractical; many of them repose undisturbed in filing cabinets. Fenske also expresses concern about the difficulties of translating goals as described in the IGI into procedures which will actually improve efficiency; this is a process of converting abstract ideals into quantitative operational measures. (39)

Despite all the conceptual problems, it is clear that many American universities have spent much time and effort on considering their goals,

either with or without the help of the IGI. Many of them have also succeeded in summarising a broad consensus of opinion in the form of a mission statement; these interesting and important documents will now be considered.

Mission statements of American universities

Some American universities have their mission defined for them, by state law. (40) Many other universities are obliged, or consider it prudent, to prepare a mission statement as part of their budget submission to state funding agencies. (41) Such statements frequently cover goals, and sometimes objectives, in addition to 'mission' as defined in Chapter One.

Whatever the motivation, there is no doubt that many American universities devote great care to drawing up their mission statement. The Pennsylvania State University's 84-page document was the result of two years of intense study; (42) the State University of New York at Albany issues a booklet 52 pages long. (43)

It has to be said, however, that length and labour are no guarantee of value, and some of these mission statements are less than impressive. (44) An institution which tells us that it sets out to 'provide an educated citizenry', or 'to serve as a dynamic force in shaping society' does not tell us anything of signficance; references to 'richer and more meaningful cultural and social experiences' for undergraduates border upon self-parody. (45) Similarly the booklet issued by Florida's public universities consists of 46 pages of vague and woolly statements accompanied by a large volume of data which does nothing to illuminate either mission or goals. (46) The unsatisfactory nature of some of these publications has not gone unremarked by commentators within the United States. (47)

The best American mission statements are, however, a different matter. They address difficult issues with clarity and vigour. For example, a Princeton University publication frankly acknowledges the elitist nature of the institution as follows: 'Broadly, our purpose is to advance the cause of the human race, to benefit mankind. We aim to accomplish this through the leverage of uncommon individuals and through the leverage of important ideas.' (48) Indiana University tackles head-on an issue which most would gloss over:

> 'Institutions of higher education have a responsibility to foster an honest and ethical academic atmosphere. As part of that effort, each discipline must arrange for its students to consider and ponder the moral questions of the field. Whether this will be done by integrating ethics into all courses or by the introduction of specific ethics courses remains to be seen and must be answered soon. Regardless, our graduates should develop during their time here a keen sense of professional responsibility in these complex and changing times.' (49)

Likewise the University of Cincinnati:

> 'Finally, as a moral community the University is concerned with choices and values, behavior and actions, judgments and decisions as to what is equitable, worthy, and just.' (50)

Consideration of a series of mission statements makes it possible to draw up a concise summary of the four primary goals of a major American university. These are:

1. A process variously described as the discovery, acquisition or creation of knowledge (in one word, research).
2. The transmission or dissemination of knowledge (teaching).
3. The application of knowledge to human problems in the interests of public service.

4. The preservation of knowledge in libraries, museums and archives. (51)

What, precisely, is the advantage of drawing up a mission statement? What does it gain a university to commit the sometimes considerable time and effort needed to produce such a document?

There are a number of answers to such questions. One is that a good mission statement undoubtedly helps a university to obtain resources. Another is that to have goals enables a university to evaluate its performance effectively. Harvard University, for example, has investigated not only what alumni believe the University did for them, but what changes it actually brought about. Tests have been devised to measure the extent of the improvement, if any, in writing skills and critical thinking; this latter ability is one which is valued highly by British academics. Gains in moral reasoning ability in Harvard graduates have also been measured. (52) It has not been possible to find evidence of any British university undertaking similar work, though of course it can be argued that the inevitable examinations or continuous assessment which are a feature of every degree course constitute a monitoring of 'value gained'.

Perhaps the best justification for drawing up a mission statement has been provided by the State University of New York at Albany. Noting that the University might 'be making more of the business of mission redefinition than some universities', the document goes on to say:

> 'The great discontinuities of our times - the financial exigencies which loom in such sharp contrast with the past - give us the choice of directing the affairs of the university in time with the new age, or of being shaped - perhaps misshaped - by the forces of blind fate. The first choice, we believe, is the strong choice.' (53)

Conclusions on the American approach to university goals

This chapter has demonstrated that one nation at least has accepted the argument that if a university is to be effective it needs clearly formulated goals; secondly, steps have been taken by that nation to measure the congruence of opinions on goals both within and between stakeholder groups; and thirdly that many universities, having clarified their goals, have issued public statements which describe what they are.

NOTES ON CHAPTER SIX

1. Allen (1979).
2. Balderston and Weathersby (1972), page (ii).
3. Ibid., page 3.
4. Ibid., page 4.
5. Fielden (1969), page 50; Balderston and Weathersby (1972), page 6.
6. The best description of PPBS is perhaps that provided by Balderston and Weathersby (1972). See also Fielden (1969), page 6, Kirst (1975), page 535, Fielden and Lockwood (1973), page 215, and Hartley (1968), page 158.
7. Kirst (1975), page 538. Fielden (1969), page 17.
8. Balderston and Weathersby (1972), page 8.
9. Ibid., page 94.
10. Kirst (1975), page 535.
11. Davies (1976), page 1.
12. Temple (1973), page 99.
13. Davies (1976), page 1, and Baron (1978), page 17.
14. Ibid.
15. Mullen (1974), page 53.
16. Temple (1973), page 99.
17. Ibid; also Winstead (1978).
18. Ashley, Tinsley, Lewis and Arnold (1981), page 10; Davies (1976), page 2; and Polczynski and Thompson (1980), page 256.
19. Davies (1976), page 21.
20. Fincher (1978), page 56.
21. Gross and Grambsch (1968).
22. Summary derived from Fenske (1978), page 34.
23. Gross and Grambsch (1968), page 107.

24. Ibid., page 21.

25. Fenske (1978), page 34.

26. Fincher (1972), page 755.

27. Quoted by Fenske (1981), page 187.

28. Carnegie Commission (1973).

29. Peterson and Uhl (1977), page 12.

30. Fenske (1978), page 37.

31. Ibid., page 36.

32. Educational Testing Service (1981).

33. Fenske (1978), page 44.

34. Peterson and Uhl (1977), page viii.

35. Ibid., page 12.

36. Educational Testing Service (1979).

37. Romney (1978).

38. Butler (1980).

39. Fenske, in a letter to the author dated 14 April 1981. See also Fenske (1981), pages 194 to 197.

40. The University of Maryland is one such. See University of Maryland (1980), page 1.

41. See, for example, University of Kansas (1981).

42. Pennsylvania State University (1980), page 1.

43. State University of New York at Albany (1977).

44. Bok (1974), page 159, and Fenske (1981), page 178, both criticise American colleges and universities for not making enough effort to define their aims.

45. All three quotations are from Washington State University (1978), pages 3 and 7. The goal statements of California State University, Los Angeles, are little better. See California State University, Los Angeles, (1981).

46. Florida State University (1979).

47. See, for example, Perkins (1973), page 156.

48. Quoted by Bowen (1977), page 10.

49. Indiana University (1981), page 10.

50. University of Cincinnati (1977), page 1.

51. This summary is drawn from Colorado State University (1982), University of Kansas (1981), and University of Kentucky (1981). It may be that the primary source for all three was the Carnegie Commission: see Perkins (1973), page 58.

52. Bok (1978), pages 12, 13 and 14.

53. State University of New York at Albany (1977), page 1.

CHAPTER SEVEN: THE BRITISH APPROACH TO UNIVERSITY GOALS

This chapter records the results of research undertaken to define the British approach to university goals. The first section gives details of British universities' responses to a request for a copy of any formal statement of purpose which they had issued. The second section gives the same information in relation to polytechnics. The few previous investigations into opinions on British university goals are then described, and the conclusions drawn from the material contained in the chapter as a whole are then stated.

The information contained in this chapter was obtained from correspondence, from previously published work and from interviews.

Goal statements by British universities

In 1973 Fielden and Lockwood published a book entitled Planning and management in universities; the subtitle was A study of British universities. This book subsequently acquired a substantial reputation as the authoritative text on the management of British universities, but the reader who searches the index for any mention of aims, goals, mission or objectives, will search in vain. There is, however, an interesting passage beginning on page 33:

> 'Whether as a participant in university management or as a manager of his own activities, the individual needs to have a clearer view of the nature of the university, to be aware of the distinction between mission, roles, programmes and objectives. Statements of mission or goal normally summarise the varied purposes of the university into one general statement set out in the Charter. These normally take the form of a statement, such as, to advance knowledge through the

pursuit of teaching and research. Specific roles spring from that mission, of which the main three normally distinguished are teaching, research and public service. These roles can in turn be divided into programmes (e.g. undergraduate teaching) and sub-programmes (e.g. undergraduate teaching in the Faculty of Arts). Objectives operate at each of these levels; at the level of mission and role, objectives tend to be generalised (e.g. orientate teaching towards inter-disciplinary or vocational studies; to concentrate research in particular fields) whereas at the programme and sub-programme levels they should become quite specific (e.g. to have one hundred Economics students graduating in 1975). We are not at this stage advocating that organisational structures should be geared to the above conceptions of activities. Neither are we commenting on the difficulty, perhaps impossibility, of reaching agreement within a university about role priorities and specific objectives. We are simply stating that the above frame of re.erence represents a useful method of obtaining an understanding of the multiple and competitive purposes of a university.'

This seems to be a sensible analysis of the position, and some British universities may have adopted a framework of this kind in thinking through their activities. The fact is, however, that in 1981/82 no British university could produce convincing evidence of having done so, certainly not in the format used for many American mission statements. (1) PPBS and MBO were seldom discussed in British universities, and were certainly never implemented.

In December 1981, in preparation for this thesis, a letter was sent to the Registrar of every British university asking for a copy of any document or publication which set out the mission, goals or objectives of the institution. All but three universities replied; however, none of the

respondents could produce anything which summarised the intentions of the institution into a coherent whole. The University of Cambridge, for example, could only refer the inquirer to a statute drafted (in Latin) in the reign of Edward VI, reading as follows:

> Deum timeto: regem honorato: virtutem colito: disciplinis bonis operam dato. (2)

Oxford University could do little better, quoting a section of the Oxford and Cambridge Act of 1877, to the effect that in making the statutes of the University the Commissioners should consider 'the advancement of art, science, and other branches of learning.' (3)

Some Scottish universities, for example Edinburgh, St. Andrews and Glasgow, were unable to produce a written statement of any kind. In at least two cases this was because they do not have a charter, and the papal bulls or Acts of Parliament which legitimate the institutions do not, apparently, make any reference to purpose. (4) Aberdeen is slightly better off: according to Sir James Mountford, the bull of Pope Alexander VI which established the University of Aberdeen made it clear that its main aim was to be the study of law and 'the promoting of civilization among the Highland clergy.' (5) The Secretary of Edinburgh University commented that 'we do not have a Charter, nor does there seem to have been any need to set down a statement of our aims and purposes!' (6) South of the border, Reading was another university which could produce no official pronouncement of any description.

The response of the majority of universities was to refer the inquirer to a clause or clauses in the appropriate charter. This proved to be marginally more illuminating, though in a number of instances it appears that one purpose of the university is to provide a university education. (7)

A large number of universities have a clause in their charter which

states that 'The object of the University shall be to advance learning and knowledge by teaching and research.' (8) Usually a number of other ideas are added to the end of that statement. For example, clause 3 of the charter of the University of Salford reads as above and then concludes:

> '...especially into the basic and applied sciences, and to enable students to obtain the advantages of University education.'

The University of Bath charter, clause 2, reads:

> 'The objects of the University shall be to advance learning and knowledge by teaching and research, particularly in science and technology, and in close association with industry and commerce.'

And, as a final example, clause 4 of the charter of the Queen's University of Belfast:

> 'The objects of the University shall be the advancement and dissemination of learning and knowledge by teaching and research, and through the practice and inculcation of professional and other skills appropriate to the provision of higher education, and by the example and influence of its corporate life.' (9)

The similarity of wording often arises from the fact that modern universities normally obtain their charter from the Privy Council (10), and in 1963 that body issued a model charter to guide the various institutions which were then seeking university status. (11) The variations in wording reflect the different aspirations of each newcomer. (12) It is interesting that two of the newer Scottish universities attempt to have the best of both worlds by referring to teaching and research 'particularly into the basic and applied sciences' (Strathclyde) or in 'Science and Technology' (Heriot-Watt), and then adding a phrase about enabling students 'to obtain the advantages of liberal university education' (both institutions). (13) It is also worth noting that some of the older universities refer to the 'Diffusion and Extension of Arts' - Hull, Nottingham and Southampton, for example. (14)

Most of the former Colleges of Advanced Technology make a direct reference in their charters to working in conjunction with industry and commerce; Aston and Bath are typical examples. (15) In this respect they follow in the footsteps of some of the older institutions, such as the University of Manchester Institute of Science and Technology, and the University of Nottingham. (16) Another common clause in charters, both old and new, is one which legitimises the provision of research and advisory services for industry, commerce and public bodies. (17)

Comparatively few universities could offer any evidence, apart from their charters, to indicate that the goals of the institution had been consciously and formally considered in any depth. During the period 1968 to 1972, Bristol had a working party to consider the aims and methods of university education; the working party eventually concluded that an adequate examination of the issues presented to it could only be undertaken if the work was established as a properly funded project with appropriate staff. It also became clear that 'the University was not in a position to finance projects in this field'; i.e. it was not willing to do so. (18)

Two other universities have examined their role in some detail, though not recently. The Academic Planning Board of the University of Stirling, set up in 1964, concluded that the 'four objectives underlying the work of a university' should be those which were set out in the Robbins Report, though the Board did not acknowledge its source. (19) In 1972 the University of Birmingham was the subject of a review by a body chaired by the Rt. Hon. J. Grimond; this body also considered that the role of a university had been adequately described by Lord Robbins and his colleagues, but in this case the source was acknowledged. Interestingly, the review body placed considerable emphasis on fostering a capacity for critical analysis and on the ability to assume responsibility

for moral choice. (20)

Aston University, in 1981, produced a revision of its academic plan. This began by noting that the University's charter 'gives little clue to what a technological university is', and went on to argue forcefully against liberal education and in favour of vocational education. (21) Ironically, Aston University, having articulated its aims more clearly than most, was among the hardest hit in the UGC's 1981 round of cuts. (22)

The survey established that up to 1981/82 there had been little formal discussion of goals in British universities, and it provided little evidence that those responsible for running the universities believed that goals should be discussed. The attitude of most British universities was summed up by the Registrar of one of them when he said: 'I think that one takes the aims of a university very much as read'. (23) It is possible to attribute this situation to a sinister conspiracy: not having overt goals means that an institution cannot publicly be seen to fail; purpose can be redefined, retrospectively, to match performance. (24) It seems more likely, however, that without any external or internal stimulus, fundamental questions of purpose have been pushed aside by the day-to-day pressure of events. (25) Tradition, as amended (reluctantly) by the continuing political process, has been considered a sufficient guide to action..

This situation is easy to understand, but it is less easy to justify. An officer of one university, perhaps feeling embarrassed that his university had only the briefest of references to purpose in its charter, and could offer no other documents, remarked that 'to draw up any other statement would probably occupy a working party for two or three years!' (26) His exclamation mark suggests that such an idea would be unthinkable. But it would surely be politic for a university which consumes perhaps £30 million of public money each year to be able to

give a convincing explanation of what it is trying to do. Lord Robbins and his colleagues, as usual, can be depended upon for a balanced view:

> 'The absence of a plan for everything is not necessarily an indication of chaos. But higher education is so obviously and rightly of great public concern, and so large a proportion of its finance is provided in one way or another from the public purse, that it is difficult to defend the continued absence of co-ordinating principles and of a general conception of objectives'. (27)

Goal statements by polytechnics

In order to ascertain whether the position with regard to goal statements was significantly different in polytechnics, when compared with universities, letters of inquiry were sent early in 1982 to a random sample of one third of the polytechnics' chief administrative officers; 7 replies were received.

The replies revealed that 4 polytechnics had never drawn up or issued any agreed statement of the goals of the institution. (28) One respondent was able to provide a brief and woolly statement ('the importance of research... is recognised'), (29) and the remaining two institutions had published longer and more thoughtful documents which were obviously the result of much work. Teesside Polytechnic's paper on its size and educational character is succinct (about 1000 words) but makes it clear that the polytechnic is strongly vocational in character and that it pays close attention to the needs of industry and commerce in the region; it also seems to be a cultural centre. (30) Manchester Polytechnic's booklet entitled Policy for development (31) includes a summary of aims which is disappointing - the statement that the polytechnic seeks 'to provide an educational experience which enables

people to live fulfilled lives' begs a number of questions - but the rest of the booklet is well written and interesting. It includes a plea which is possibly unique: that courtesy should prevail in all areas of activity. Unfortunately the publication has not been revised since 1974, but it remains an asset to the institution which produced it.

The overall conclusion, based on a limited sample, is that British polytechnics have devoted more effort to clarifying their goals than have British universities. This is borne out by a consideration of the limited amount of research which has been carried out in this country into the opinions of various groups on the goals of higher education; that research is described in the next section.

British research into opinions on goals

According to Professor Eggleston, Head of the Faculty of Education at Keele University, 'Research into higher education in England is spasmodic, uneven and unco-ordinated.' (32) There is a Society for Research into Higher Education, which has produced a number of valuable publications, notably the eleven volumes generated by the Leverhulme Inquiry. But at present no British university offers a chair in higher education; the chair at the University of London Institute of Higher Education has remained vacant since the retirement of Professor Niblett. It is not surprising, therefore, to find that comparatively little research has been carried out into the extent to which opinions differ on what the goals of universities, or polytechnics, should be. This section describes the principal studies which have been reported in the literature; the next chapter, which considers the views held by the various stakeholder groups, will refer to specific research findings, where appropriate.

In the 1960s and early 1970s, Entwistle and Percy conducted a

number of studies under the aegis of the Joseph Rowntree Higher Education Project at the University of Lancaster. (33) At an early stage in their inquiries they carried out a review of the aims and objectives which have been ascribed to different types of institution at different times. Here they soon found that they were 'operating in a research vacuum'; consequently they described their activities in this field as a pioneer effort. (34) Their principal conclusion was that there were 'great and irreconcilable differences between the objectives and the priorities of objectives claimed for the university.' (35) They decided that there was no generally accepted 'idea of a university' which all could accept and admire, (36) but they did note the strength of the belief in the university as a 'guardian of the spiritual, non-material, permanent values of the "life of the mind".' (37)

Entwistle and Percy also persuaded a small number of lecturers (forty) to complete an attitude scale consisting of six sets of six statements; this was designed to shed light on the lecturers' opinions on the extent to which universities were or should be responsive to society's contemporary needs, and similar issues. (38) The sample was small, and was drawn from one university, one polytechnic and two colleges of education. The findings are therefore far from representative of all academic opinion, even at the time of the survey, but they will be referred to in the next chapter when appropriate. A later study carried out by Brennan and Percy, into the predominant goals and aspirations of British students, was based on much larger samples of both students and staff and therefore provides a more reliable picture. (39)

By the mid 1970s an awareness of the extensive American research on goals had begun to filter through to a few British academics, and the IGI questionnaire was used as the basis for two small-scale inquiries in this country. Norris prepared a modified version of the IGI questionnaire

and carried out a pilot test with the co-operation of 13 respondents at the University of Leeds. He then sought permission to carry out a larger-scale survey within the University, but the Leeds Senate was unimpressed and refused. (40) Norris's results came from too limited a sample to be of any value.

The IGI questionnaire was also used as the basis for an inquiry into the views of academic staff at the North East London Polytechnic; this study was carried out by Laycock. (41) The starting point for this particular project was the belief that the Polytechnic's goals should receive the closest scrutiny, so that the institution could eventually assess its performance. The major findings were that staff believed that courses should have real practical value, and that provision of an education which would develop the 'self' was considered to have a low priority; (42) this is in accordance with what is already known from other sources about the ethos of polytechnics. In the end, however, Laycock concluded that it might not be possible to assess the goals of the polytechnic to any meaningful extent, and that this was a 'high-risk area' of research. Laycock was also brought face to face with a problem mentioned by Fenske, namely what to do with the results of the survey once he had them. His conclusion was that they should be regarded as 'a preparative word-picture to delineate the groundwork for future effort.' (43)

The final project which must be mentioned in this survey of British research is the inquiry into the Expectations of Higher Education. This project was funded by the DES in 1980 at a cost of some £111,000; (44) it was under the direction of Professor Maurice Kogan of Brunel University, and took three years to complete its work. An interesting and valuable publication emerged from the project quite quickly: this was entitled Expectations of higher education: some historical pointers; it was written by Harold Silver. (45) Various references to this book will be

made in the next chapter. Only a few short summaries of the rest of the project's work have so far been published, but the Director hopes that a full report will appear in book form in 1985. (46)

The Expectations of Higher Education Project was intended to analyse the expectations which different groups had of higher education, particularly in relation to the employment of graduates. The principal groups considered were students, employers, and providers in educational institutions. It was hoped that the findings would offer information and generate ideas which would contribute to the formulation of higher education policy. (47) The project placed a heavy emphasis on interviews with members of the various groups drawn from a large number of institutions and industrial and commercial concerns. Student opinion was tested through a survey of 6,000 final-year students in 36 different institutions. (48) All in all, the Expectations of Higher Education Project constitutes the single most extensive inquiry into the purposes of higher education which has ever been carried out in the United Kingdom. Further reference to the findings will be made in the next chapter.

Despite the importance of the Expectations of Higher Education inquiry, the overall picture of British research into university goals fully confirms Professor Eggleston's description, quoted at the beginning of this section. Researchers in the field have been few in number and, with the exception of Professor Kogan and his team, have operated on a limited scale - sometimes on a microscopic scale. Those who have tried to use questionnaires and attitude scales have in two instances (Norris and Laycock) depended heavily on an American model. But the IGI questionnaire is far too long and is in many other ways inappropriate for use in a British context; it is not surprising that the results obtained from the modified versions of it have been disappointing.

Nevertheless, a certain body of work has accumulated, and although

the results must be interpreted with caution, they do help to shed light on the views of stakeholder groups. It is the views of those groups, expressed in a variety of ways, which will be described in the next chapter.

Conclusions on the British approach to university goals

The material contained in this chapter demonstrates that The Times Higher Education Supplement was not exaggerating when it stated in an editorial that fundamental questions about the purpose of universities are 'habitually avoided'. (49) Within departments there is, of course, almost continuous discussion about course content, and it would be wrong to underestimate the extent or the seriousness of such debates. But goals may easily be implied rather than openly acknowledged in decisions on the curriculum, and judging by the evidence which universities can produce when asked, consideration of goals at Senate and Council level is extremely rare. The contrast between British and American universities in this respect is dramatic. Similarly, comparatively little research has been carried out in this country into the congruence of opinions on goals.

NOTES ON CHAPTER SEVEN

1. In March 1984 the University of Ulster did in fact publish a mission statement. The statement was no doubt considered necessary following the merger of the New University of Ulster with Ulster Polytechnic. As mission statements go, however, Ulster's is not an impressive document. It deals primarily with means rather than ends, and like many public documents it tries to be all things to all men; on research, for example, it states that the 'implied orientation towards the applied will not be pursued to the exclusion of good pure research.' (Paragraph 7.)
2. Letter from the Registrary of the University of Cambridge, to the author, 5 January 1982.
3. Universities of Oxford and Cambridge Act, 1877, section 16. Quoted by Mr. W.L. Bell, of the University of Oxford, in a letter to the author, dated 7 January 1982.
4. Letters to the author from Officers of the Universities of Edinburgh, St. Andrews and Glasgow.
5. Mountford (1966), page 11.
6. Letter to the author, dated 5 January 1982, from the Secretary of the University of Edinburgh. The exclamation mark is his.
7. The charters of the following universities all include references to that effect, in one form of words or another: Aston, Essex, Heriot-Watt, London, Salford, Strathclyde, Sussex, the University of Manchester Institute of Science and Technology, Warwick, York, and the Open University. Sources: letters from Officers of the universities named.
8. See, for example, clause III of the Supplemental Charter of the University of Manchester. Quoted by the Registrar in a letter to the author, dated 5 January 1982.

9. All three clauses cited in this paragraph were quoted in letters to the author from the Registrars of the universities named.

10. Moodie and Eustace (1974), page 21.

11. Ibid., page 34.

12. Further variations upon the same clause can be found in the charters of the following universities: Aston, Brunel, Essex, Heriot-Watt, Kent, Lancaster, Sussex, Strathclyde, Warwick, York, and the Open University. Sources: letters to the author from Officers of the universities named.

13. Extracts from the charters of Heriot-Watt and Strathclyde universities were quoted in letters to the author by Officers of the universities named.

14. Sources: letters to the author from Officers of the universities named.

15. Also Bradford and Surrey. Sources: letters to the author from Officers of the universities named.

16. Sources: letters to the author from Officers of the universities named.

17. See, for example, the charters of the following universities: Aston, Bristol, Essex, Hull. Sources: letters to the author from Officers of the universities named.

18. Letter to the author, and enclosures, from the Registrar of the University of Bristol, dated 6 January 1982.

19. First report of the Academic Planning Board of the University of Stirling, page 3. Quoted in a letter to the author, dated 12 January 1982, from the Secretary of the University of Stirling.

20. Letter to the author, and enclosures, from the Registrar of the University of Birmingham, dated 11 January 1982.

21. Letter to the author, and enclosures, from the Registrar of the University of Aston, dated 4 February 1982.

22. UGC circular letter 10/81, dated 1 July 1981. See Parkes (1981).
23. Letter to the author, dated 14 January 1982.
24. See Weathersby (1979), page 6, for a discussion of this point.
25. Campbell argues that this has also happened in Canada. See Campbell (1975), page 53.
26. Letter to the author, dated 7 January 1982.
27. Robbins (1963), page 5.
28. They were: City of London, Leicester, Oxford, and South Bank. Sources: letters to the author from Officers of the polytechnics named.
29. Preston Polytechnic, quoted in a letter to the author, dated 25 January 1982, from the Chief Administrative Officer.
30. Letter to the author, and enclosures, from the Clerk to the Governors of Teesside Polytechnic, dated 25 January 1982.
31. Manchester Polytechnic (1974).
32. Eggleston (1983), page 66.
33. Entwistle and Percy (1973), page 1.
34. Entwistle and Percy (1970), page 2.
35. Entwistle, Percy and Nisbet (1971), page 19.
36. Ibid.
37. Ibid., page 20.
38. Ibid., page 25.
39. See Brennan and Percy (1975).
40. Norris (1978), pages 28, 29 and 37.
41. Laycock (1979).
42. Ibid., page 1.
43. Ibid., page 14.
44. Department of Education and Science (1980), page 1.
45. See Silver (1981).

46. Kogan and Boys (1983).

47. Ibid., page 1.

48. Ibid., page 2.

49. Times Higher Education Supplement (1984b).

CHAPTER EIGHT: THE VIEWS OF THE STAKEHOLDERS ON THE GOALS OF BRITISH UNIVERSITIES

In Chapter Three it was established that a number of groups may be regarded as stakeholders in the British university system. This chapter sets out the results of the research which was undertaken to discover the views held by the principal stakeholder groups on what the goals of universities should be. In each case an assessment is made of the extent to which the group has clarified its ideas, and the general trend of opinion within the group is identified (if possible).

The information contained in this chapter is derived from a number of sources. At least one member of every stakeholder group was interviewed; letters of inquiry were sent to the appropriate national or professional bodies; and the available literature was reviewed. In some cases the stakeholder groups have expressed opinions on higher education through their official publications; in other cases views have been put forward by individuals who may be regarded as spokesmen authorised to speak on behalf of the group. However, some groups have not made formal statements of any kind, and in those instances it was necessary to assess their attitude either through the findings of earlier surveys or through the comments of members of the group who were not official spokesmen.

Analysing the views of the stakeholder groups has called for the use of judgement. On the whole, the findings of large-scale surveys have been given more weight than statements made by individuals, but there may be exceptions: for example, the views of an 'elder statesman' may be more valuable than the findings of a research project with a low response rate. It also has to be borne in mind that those who are satisfied with the status quo do not often feel obliged to say so in public.

Consequently the majority of published statements on any issue, and certainly the most provocative statements, will tend to be critical of the subject under discussion. Due allowance has been made for this tendency.

The general public

A previous group of researchers found it 'a surprise to discover that there is little empirical knowledge of the public's views on the major functions of universities.' (1) The situation has not changed much since that was written, in 1971.

The Gallup Poll organisation has no information on the public's opinion of universities, (2) but its findings on education as a whole suggest that dissatisfaction is increasing. In 1984, 69 per cent of a nationally representative quota sample, made up of 1,090 adults in 105 districts thoughout the country, considered that Britain was not giving enough attention to education; in 1959 the figure was only 34 per cent. Similarly the proportion considering that their children were getting a better education than their own generation had received had fallen from 71 per cent in 1959 to 45 per cent in 1984. (3)

The Royal Society of Arts is a large and broadly based group which is heavily involved in education and training at all levels. The Society is unhappy with the state of affairs in both the schools and higher education, and its 'Education for capability' scheme reflects this concern. Traditionally, says the Society's spokesman, an 'educated person' has been 'thought of as a scholarly, leisured individual who has not been prepared to exercise useful skills; who is able to understand but not to act. This imbalance is harmful to individuals and to society.' Capability, as seen by the Society, is not just the ability to tackle a problem: it is the ability to feel rationally as well as to think rationally; this involves the

cultivation of sensitivity, something which has lost ground in recent years to the pursuit of specialised knowledge. (4) Over the past few years the Society has listened respectfully to a succession of lecturers who have outlined what they consider to be the shortcomings of both the schools and the universities. (5) The need is said to be for more relevant curricula so that students can develop their specialised competencies and cope with both themselves and their environment. (6) In 1982 the Society produced a report on The future of technological higher education in Britain. (7) This report argued that in order to compete successfully in open international trade, Britain must develop a stronger base of higher technological education; this would require stronger links with industry and commerce, new methods of funding, and the creation of new institutions.

The Association of University Teachers (AUT) has obviously been conscious of public criticism in recent years. In 1982 the AUT thought it appropriate to counter a number of 'public myths'. One was: 'universities do not teach anything useful to students. They are ivory towers and are not concerned with and know nothing about the real world.' Another 'myth' was: 'much of university research is not relevant.' (8)

It can be argued that the general public demonstrates its faith in universities by applying for admission; but the admissions process involves only a small minority of the population at large. It seems more likely that Minogue was nearer the mark when he stated that 'universities have been almost constantly in a state of conflict with much of the society around them. They have been, so far as public reputation is concerned, almost permanently unsatisfactory institutions. Public discussion has been about little else but reforming them.' (9)

It appears from the evidence available that the general public is unenthusiastic about universities, at best. The public, however, has only a marginal and spasmodic contact with universities. It will therefore be

useful to consider next the views of a group of people who are directly concerned with products of universities: the employers.

The employers

Individual employers, chiefly in industry, have historically been very ready to speak their minds about the universities: what they have said has seldom been complimentary. The importance of employers' views has also been widely recognised by the universities and by the press, and the result is that the opinions of this particular group of stakeholders have been thoroughly documented.

The complaint that universities are insufficiently responsive to the needs of industry is not a new one: in 1903 a conference was held at Cambridge to discuss the failure of that university to provide an education suited to the needs of men who would shortly be engaged in business. (10) Since then there has been a constant stream of accusations levelled against the universities that they have failed to meet the needs of industry and of employers in general. (11) Universities have been criticised for producing men who are 'timid and irresolute , antagonistic to industry and commerce, and lacking in awareness of the profit motive.' (12) A long series of quotations would be wearisome but a few are necessary to give the flavour of the consensus view.

In 1981 The Times Higher Education Supplement featured the head of Unilever Research complaining about 'the ivory tower attitude of academics'; (13) on the same page the President of the Confederation of British Industry (CBI) argued the need for the whole of education to be made more responsive to the needs of the economy. (14) In 1982 an editorial in the Financial Times stated that British universities have always set their faces firmly against vocational training and suggested

that most of what was now taught was as useless as the ability to construe Greek verse. (15) In 1984 there were even proposals for a technological university funded by industry. (16)

Some of this criticism can rightly be ignored as ill-informed generalisation, but the strength, volume and persistence of the criticism cannot easily be dismissed. Indeed the CVCP felt impelled, in 1981, to produce a booklet defending the universities' record. (17) It seems clear that many employers believe that a close connection between the universities and 'industry' (to use a general world for all forms of employment) is highly desirable. Most of them also sense a considerable resistance on the part of universities to providing what industry wants. The pressure from employers for a more responsive attitude on the part of universities seems to be increasing.

Within the last few years a number of research projects have described the employers' attitudes in some detail. In 1979 a survey was carried out by Bacon, Bentca and Gruneberg. (18) Only 49 questionnaires were returned by employers of university graduates (a 56 per cent response rate), but the results indicated that the most sought-after qualities in university students were drive, motivation, leadership potential and adaptability. Interestingly, vocational training was ranked 13th out of 14 in the list. The survey also suggested that employers generally considered that the experience of being at a university did serve to enhance the qualities which were considered important; however, only 7 per cent of employers judged that the qualities which they sought were found in more than half the students they interviewed.

A very much larger inquiry into employers' attitudes was undertaken as part of the Leverhulme programme of study into the future of higher education. (19) This confirmed that the higher education sector was seen by employers as having failed to meet their needs. (20) It also

established that the behavioural traits inculcated by higher education were more valued by employers than was cognitive knowledge. The general conclusion was that the higher education system and the labour market worked fairly well together in the sense that most surpluses or shortages of skills tended to be quickly eradicated. (21)

The CBI contribution to the Leverhulme discussion was particularly interesting in that it argued for a thorough investigation of the purpose and structure of higher education. The Government was requested to give the system a set of clear, long-term objectives, a policy 'firmly grounded on agreed educational goals'. (22) Developing such a strategy, it was stated, would involve consideration of the balance between vocational and more general courses, 'academic' or applied research, and the exercise of 'a certain leadership function' through influence on the public examination system. (23) Without such an overall policy, the CBI argued, the task of providing a rational and coherent pattern of provision would prove extremely difficult. (24)

Dissatisfaction with the relevance of university courses to industrial needs is not confined to employers. Beuret and Webb's recent research (25) shows that many young engineers are badly shaken when they discover the importance of non-technical abilities in their jobs. The importance to employers of non-academic characteristics was also highlighted by the Expectations of Higher Education Project, funded by the DES; (26) and over a period of one year, 39 per cent of advertised vacancies for graduates were open to graduates of any discipline. (27)

It is necessary to make due allowance for the possible existence of a large number of employers who are well pleased with their graduate recruits and who do not make angry speeches or write to the newspapers. Having made such allowance, it is clear that many employers are critical of the universities on a number of counts. The Expectations of Higher

Education Project showed that a minority of employers do not accept that experience of higher education enhances the value of an employee at all. (28) In general, employers regard a degree as an indicator of basic ability - an ability which they can, with time, mould to their needs. The degree need not be a good one, and high academic ability may indicate an unsuitable case for treatment. The Chairman of the Manpower Services Commission recently asked: 'Can anyone think of somebody with a double First or a very good degree who has really succeeded as a captain of industry?' (29)

At this point the universities might be forgiven for making a complaint of their own, namely that employers criticise the product, but when pressed do not seem to be able to define what they want: 'the needs of industry' have simply not been stated in a coherent form. (30) Sir Monty Finniston asked employers what they would do to correct the situation which they all agreed was unsatisfactory, and found that they regarded that as a job for educationalists. (31) Even when courses have been redesigned, with the specific needs of employers in mind, there have been further criticisms. (32)

Nevertheless, despite the difficulty of substantiating complaints and clarifying needs, it remains a fact that employers as a group feel that the universities (and, for that matter, the polytechnics) are not providing graduates who meet their requirements. The relationship between employers and universities is for the most part distant, (33) and the fault is not all on the university side: it is questionable to what extent employers wish to become involved in course design and planning. (34) It is also undoubtedly true that this gap between employers and universities is important, if only because employers are a powerful and influential group. The essence of the problem is the extent to which degree courses should be vocational; and even if it were possible to design all

courses to satisfy employers, it must not be forgotten that such courses might then be incompatible with the needs and demands of other stakeholder groups.

The professional institutions

Most laymen are familiar with the fact that British professional bodies exercise a powerful influence over their members: our daily newspapers frequently report cases where doctors or lawyers have been banned from continuing to practise their profession because of offences of one kind or another. What is not quite so well known is that many professional bodies also have a powerful influence over universities.

Universities were in many instances slow to react to demands for courses which were relevant to the professions: (35) in the early part of the twentieth century, medicine and engineering, for example, were well catered for, but it was often considered beneath a university's dignity to teach subjects such as accountancy or librarianship. (36) Eventually, however, pressure from the professional bodies, coupled with the universities' self-interest, saw to it that the needs of most professions were recognised by universities, albeit reluctantly. But the relationship between the two sides remains a sensitive one, with the professions often claiming the right to determine standards and curricula, and the universities insisting on academic autonomy. (37)

The present position exhibits considerable variation. The influence of some professional bodies is marginal and largely benign. There are, for example, six 'first-tier' accountancy bodies in Great Britain, each with its own pattern of examinations and its own criteria for recognising relevant degrees. (38) These bodies operate a joint Board of Accreditation which visits universities from time to time (if invited) and

it is prudent for a university to keep the requirements of the various bodies in mind when designing or redesigning a degree course. However, the 'credit' given by the accountancy bodies for a 'relevant' degree is not very great at best, so the fact that a particular degree is not regarded as relevant is not a disaster for the would-be accountant: he simply has to take a few more examinations set by the professional body, in addition to his degree. (39)

By contrast, the power of the Pharmaceutical Society of Great Britain is much greater. The maintenance of a satisfactory system of training is a major objective of the Society, and it has developed elaborate means to secure this end. There are 17 schools of pharmacy within British universities, and each is visited every 5 years by a group of the Society's delegates. These 'visitations' are in fact inspections, and if the Society is not satisfied with what it finds it can withdraw recognition of the degree as acceptable for the purpose of statutory registration. A university which could not show that its course was acceptable for registration would certainly not be able to attract pharmacy students. Thus the Society has, in effect, a stranglehold. (40)

To summarise, it is clear that the influence of the professional associations upon the universities is extensive and is increasing: in general, their major concern is to ensure that universities produce competent members of their profession. With the passing of time, the senior officers of each association will tend to become those who entered the profession through the university route rather than through the old extra-university route: their interest in universities, and their ability to influence them, will probably be greater than at present. The growing interest in refresher courses and continuing education will also ensure a larger measure of involvement on the part of the professions.

It is worth noting that the relationship between the universities and

the professional associations is by no means over-researched, despite its importance: this may be an indication of its extreme sensitivity. The Leverhulme Inquiry concluded that 'The relationship between the... professional bodies and... higher education institutions needs special study which we were not able to undertake.' (41)

The political parties

Education as a whole is evidently not a subject of great interest to politicians: Mr. Callaghan is the only Prime Minister to have devoted an entire speech to it. (42) Not surprisingly, therefore, the major political parties have comparatively little to say about the goals of universities.

(i) The Social Democratic Party

In 1982 the Social Democratic Party (SDP) produced a policy statement on education which indicated that the party considered that higher education was in urgent need of review. (43) An SDP statement published in October 1982 went on to recommend a shift from 'fundamental research to strategic and applied research.' (44)

As the general election of 1983 approached, the SDP issued a 'White Paper' on education and training. This contained the only reference to the purpose of higher education made by any political party in its 1983 election material, albeit a brief and relatively innocuous statement. The purposes of higher education were said to be 'to develop the individual intellect and to serve the needs of society'; a third purpose was the advancement of scholarship. (45) The 'white paper' also argued in favour of a shift from single subject to broadly based degrees, and from Honours to General degrees, with a larger element of applied or job-based study.

(ii) The Liberal Party

The Liberal Party published a report on higher education in 1977. (46) This was essentially a discussion document rather than a statement of agreed policy, but it gives some indication of the Party's views.

The report argued that education is a process which should benefit both the individual and society; there should be greater access to higher education; (47) closer links should be formed between institutions of higher education and their local communities; more attention should be paid to manpower-planning requirements; and universities should be free to criticise society as well as to serve it. (48)

In 1984 the Liberals criticised some of Sir Keith Joseph's recent statements, and argued that it was highly desirable to release the untapped demand for higher education which was present among women, ethnic minorities, the working class and potential mature students. (49)

(iii) The Labour Party

In response to an inquiry in connection with this research, a Labour Party Information Officer admitted that 'relatively little work has been done (by the Party) questioning the whole purpose of universities and colleges.' (50)

Perhaps the most elaborate consideration of higher education by the Labour Party dates back to 1973. In that year an 'Opposition Green Paper' was published. (51) Buried within it was a statement that 'post-school education should be a synthesis of liberal and vocational education.' This was scarcely an original idea, but at least it showed that the study group which prepared the report was aware of the need to say something about purpose.

In 1978 the Labour Party again came to grips with higher education policy in its discussion document Higher Education into the 1990s. Here, however, the arguments were almost entirely about demography and cost rather than about what form of higher education was wanted, for whom, and for what purpose. (52)

The Labour Party's response to the 1981 cuts was to oppose them vigorously on the grounds that the 'national interest' required wider and more generous provision of further and higher education. The Party's policy was to secure expansion and change in higher education, though how much expansion and precisely what changes were not specified. (53)

In January 1983 the Labour Party issued a further discussion document on education after the age of 18. (54) This argued that investment in education was a major force for innovation and change, bringing greater control over their environment and destiny to a variety of disadvantaged groups. It was recommended that admission requirements for higher education should be reviewed in order to provide more open access, and that a more general sixth-form curriculum should be introduced. The document concluded with the thought that it was important that the universities should be given clear objectives by a future Labour government, together with the time and resources necessary to achieve those objectives.

(iv) The Conservative Party

In 1981, when Professor Alan Walters was appointed as the Prime Minister's economic adviser, he asked to see the Government's policy papers: there were none. (55) In 1983, when a journalist asked for the Conservative Party's views on higher education, he was referred to the Party's manifesto and was told that there was no detailed policy on the

universities as such. (56) That situation continued until the publication of the Green Paper on higher education in 1985; the Green Paper set out the Government's views on higher education, and it will be fully discussed in Chapter Fourteen. In the meantime, it is worth recording what the Government has actually done while in office.

The Conservative Government of 1979 did not have any clearly defined philosophy of higher education, but it did have a firm commitment to reduce public expenditure; (57) hence the cuts of 1981. So far as can be ascertained from statements made at the time, the 1981 cuts were not imposed because of a belief that the universities had failed; they were made necessary by the world recession. (58) At the same time as the cuts were imposed, the Government was anxious to protect research and to encourage a shift towards the 'harder' sciences such as medicine and engineering. (59) The Government did not attempt to tell the UGC how to effect the desired policy, but it did give the UGC a clear indication of its wishes. (60)

By 1982, Mr. Waldegrave, the Minister responsible for Higher and Further Education, had decided that a genuine policy for higher education as a whole could now be formulated for the first time; this statement was apparently prompted by the advent of the National Advisory Body (NAB), which co-ordinates policy in local authority higher education. (61) Mr. Waldegrave also noted that there was a need for reform, but that the Government's role in bringing about change should be limited. (62)

In 1983, the Education Secretary, Sir Keith Joseph, urged universities to become more cost-effective; he also reiterated the need to shift the balance of the system towards engineering and technology. (63) This represented a considerable shift of opinion for Sir Keith himself, who in 1974 had criticised the quest for 'relevance'. In an important and controversial article in The Times Higher Education Supplement Sir Keith

had argued that vocational subjects were the business of the polytechnics; universities should be concerned with 'the pursuit of knowledge for its own sake.' (64)

In 1983 and 1984 there were further pointers to the Government's views. There was continued pressure for more emphasis on technology, science and engineering. Research was promised increased resources, if possible. (65) The Government expressed the wish that universities should be less dependent on public funds, partly to relieve the taxpayer and partly to concentrate the minds of academics more firmly on meeting the real needs of industry. (66) Mrs. Thatcher herself said that universities must not only generate ideas but must see that they were taken up, 'whether in the arts or in the sciences, to the great advantage of all our people.' (67) And in case anyone should fear that all this emphasis on science and technology was unhealthy, Sir Keith Joseph acknowledged publicly that there was a need to teacn culturally important subjects as well as economically important ones. (68)

Several commentators concluded that, judging by its actions, the Government had abandoned the Robbins principle that all those who are suitably qualified should have access to higher education if they wish to take advantage of it; that principle had formed virtually the sole basis of successive governments' 'policy' on higher education for some twenty years. (69)

(v) Summary of the views of political parties

The evidence suggests that politicians are relatively uninterested in discussions of the fundamental purposes of higher education in general, and of universities in particular; they are more interested in costs and a quick return on their investment.

It seems appropriate to conclude this section with a note on the views of the House of Commons Committee on Education, Science and Arts. In its fifth report, published in 1980, the Committee declared that it had been 'impressed by the need to define institutional objectives much more clearly, both to provide a more secure basis for future planning... and to serve as a discouragement to academic drift'. (70) The Committee recommended that all colleges, polytechnics and universities should be asked to prepare statements of their purposes and objectives, for approval by the UGC or other bodies as appropriate. It was proposed that once the UGC (or other body) had approved the statement, it should be published; thereafter institutions would be left relatively free to run their own affairs with a minimum of national or local control; the Committee noted how successful this approach had been in the United States. (71) This recommendation was later echoed by the Leverhulme Inquiry and by the Jarratt Report, which is discussed in Chapter Fourteen; it has not been given the force of law.

The Department of Education and Science

The DES has surprisingly little to say about the goals of universities or of higher education in general. In response to an inquiry from the author of this thesis, a senior officer of the DES stated that 'You will not find a set of goals inscribed anywhere on tablets of stone.' (72) He went on to suggest that this was 'not quite so naive as it might appear' once the conflicting views of numerous authorities and bodies were taken into account. It appears, therefore, that rather than try to promulgate a policy on goals of its own, the DES prefers to let a working compromise emerge from the continual discussion about what universities should or should not be doing.

It seems to be formally accepted by the Government that the UGC has more expert knowledge of the universities than has the DES. In 1982 Mr. Waldegrave praised the UGC's judgement in determining how the 1981 cuts would fall, noting that 'it was their decision based on the very much greater knowledge and skill that they have than the DES could ever have.' (73)

Only occasionally has the DES ventured into print about the purpose of higher education. One such instance occurred in 1970, when the DES declared that the overall aim of the teaching function was 'To provide higher education for those who could benefit from it, and to meet the requirements of society for qualified manpower.' (74) This reference to manpower tends to confirm the analysis of Slater and Tapper, who argue that the general educational ideology of the DES has an economic orientation. (75) The DES, according to this interpretation, is simply falling in line with the policy of successive governments, which is to give priority to the nation's industrial needs.

In the maintained sector of education, the DES is understandably very powerful. (76) However, as far as the universities are concerned, there appears to be no great steamroller of continuing policy which would crush all but the strongest ministers.

The University Grants Committee

It can be argued that every pronouncement from the UGC is of necessity based upon a conscious or unconscious assessment of what the goals of universities should be; the problem for the observer has been that until recently the UGC had never issued any formal statement of its views on basic goals. (77) In 1984, however, that omission was rectified, albeit at the instigation of another party.

In September 1984 the UGC and the National Advisory Body both submitted advice to the Government. The two bodies included in their reports a common chapter on the goals of higher education. (78) The chapter was first drafted by the NAB and was later adopted by the UGC, Thus the NAB produced in 3 years a statement which the UGC had failed to produce in 65.

The two bodies begin by confirming that the four aims of higher education which were first described in the Robbins Report are still broadly valid. It is noted, however, that specific knowledge quickly becomes outdated and that initial higher education should therefore emphasise underlying principles and should develop basic skills: among the skills mentioned are the capacity to analyse complex issues, and the ability to communicate clearly, both orally and in writing. The conclusion is that higher education must be made broader, and to this end the universities must give a positive lead towards change in the sixth-form curriculum. The UGC advice emphasises that school-leavers should have followed courses in both arts and sciences throughout their secondary schooling. (79)

The third aim described in the Robbins Report, the advancement of learning (research), is also endorsed, as is the fourth, the transmission of a common culture. The joint statement notes, however, that there are now many diverse cultures within our society, and so this aim must in future be interpreted as referring to truly basic values, such as free speech and the examination of cases on their merits.

Finally, the UGC and NAB describe a new aim, which is the provision of continuing education in order to facilitate change and to meet individual needs. The statement concludes by restating the famous Robbins principle as follows: courses of higher education should be available for all those who are able to benefit from them and who wish

to do so. (80) The new emphasis is on ability to benefit rather than on qualifications.

Apart from the 1984 joint statement with the NAB, other clues to the UGC's views on goals may be found elsewhere. The UGC's statement to the House of Commons select committee, following the 1981 cuts, reveals that among the criteria which the UGC took into account in 1981 were student demand and employment prospects. (81) Thus the UGC appears to believe that the teaching function of universities should be tailored (at least in part) to meet the needs of students and employers; the judgement of academic staff as to what is right and proper to be taught is not to be the sole, or even the most important, criterion. The events of 1981 also indicate that the UGC accepted the Government's contention that there should be an increase in the number of graduates in science and technology.

The academic staff

According to Burton R. Clark, British academic staff have a greater degree of control over the universities they work in than have the academics in France, Japan, Sweden or the United States. (82) The views of academic staff on university goals are therefore particularly important.

Unfortunately, academic staff as a national group appear to have devoted little thought to the issue. When asked for a copy of any paper on university goals issued by the Association of University Teachers, the Assistant General Secretary wrote: 'It is with some embarrassment that I confess that despite the mounds of documents we have put out in the last few years I cannot recall the issue of such a statement.' (83)

In order to obtain an overview of the attitudes of academic staff it is therefore necessary to go elsewhere, in particular to consult surveys of

opinion. It will also be convenient to examine academics' attitudes in relation to the two major activities of universities: research and teaching.

(i) Research

There is a considerable weight of evidence to suggest that most academic staff believe that their role should involve both teaching and research; this was suggested by Halsey and Trow in 1971 (84) and has been confirmed since.

Halsey and Trow's large-scale survey showed that one third of academics regarded research as their first duty, with teaching very much in second place. (85) Of those who were interested in both teaching and research, a greater number leaned towards research rather than towards teaching. (86) Halsey and Trow's survey was based on a 51 per cent response rate, and must therefore be interpreted with some caution. (87)

More recently than Halsey and Trow's study, the fourth Leverhulme seminar demonstrated that many academics regard research as central to the university's mission. (88) The joint working party on research which was chaired by Sir Alec Merrison, and which reported in 1982, also stated that it could not emphasise too strongly its concern for the health of university research; the working party's report advocated that universities should channel funds into research 'notwithstanding adverse effects elsewhere'.

Most of the arguments put forward in support of the research function emphasise its importance in terms of the nation's economic welfare, (89) but is is perhaps worth noting that Startup established in 1979 that academics' main reason for undertaking research was not the nation's best interests, but the fact that they enjoyed it. (90)

Academics, and others, are often concerned with the question of

whether research should be pure or applied. However, it would be wrong to assume that the growth of applied research has resulted solely from pressure by Lord Rothschild (91) and other external forces of the same persuasion; much of it has been undertaken voluntarily. (92) The CVCP seeks to resolve the argument by suggesting that basic, fundamental research is ultimately more useful for industry than the solution of short-term problems. (93) This kind of argument, which seeks to have the best of both worlds, is one which, as has been demonstrated in earlier chapters, is frequently used by those involved in the political process.

Finally there is the issue of whether teaching and research must necessarily be undertaken by the same individual. For some senior academics the answer is that if teachers were not also researchers 'we would not really have a university at all.... It is of the essence that the same people do both jobs.' (94) However, an entirely opposite view has been expressed by the present Chairman of the UGC; and, at the fourth Leverhulme seminar, the idea that good undergraduate teaching did not require a teacher to be simultaneously a good researcher was one which received wide assent. (95) Whatever the views about the involvement of individual members of staff, the published evidence suggests that virtually all academics agree that in this country an institution which did not undertake research could not reasonably be called a university. (96)

(General arguments for and against research as a university activity - as opposed to academics' views - will be discussed in Chapter Ten.)

(ii) Teaching

The fear has often been expressed that teaching comes a poor second to research on the British academic's list of priorities. (97) However, Halsey and Trow established that teaching was of great

importance to many academics; indeed the most common orientation among respondents to their survey was that of 'elitist teacher'. (98) It is also an undeniable fact that a great deal of teaching goes on in universities; and as Newman pointed out, whether or not the correct purpose of a university is 'to make its students "gentlemen", still to make them something or other is its great object.' (99)

What then do academics consider to be the 'great object' of teaching? Taking a view over the past hundred years or so, Silver argues that the main emphasis has been on liberal education. Technology and vocational subjects have tended to be 'liberalised'; (100) the same point about the great tradition of 'personal' education is made with approval by Dancy. (101) Halsey and Trow noted that part of the essence of the 'English idea of a university' is that it offers 'education' and not merely 'training'. (102) They also established that many academics considered that universities overemphasised the single-subject honours degree, and that there was too much emphasis on the training of experts and too little on the education of widely cultivated men. (103)

In the same year that Halsey and Trow's study appeared (1971), Entwistle, Percy and Nisbet published the results of a much smaller survey which provided similar conclusions. The major teaching objective of university academics was found to be to promote 'critical thinking', although the teachers were not always very effective in bringing about the desired result. (104)

As the 1970s passed, there were signs that changes were taking place. In his follow-up survey of 1976, Halsey found that two thirds of university teachers opposed the idea that universities should leave the newer and more vocational subjects to the polytechnics. (105) And by 1981, when the Government's emphasis on the vocational, scientific and technological aspects of education was fully apparent, many of those who

believed in the value of the humanities and liberal studies generally felt that it was time to speak out strongly and to form alliances: a spate of articles and letters to The Times followed. (106)

The debate continues. It has been aptly described by Lord Ashby:

> 'Round every Senate table sit men for whom the word university stands for something unique and precious in European society: a leisurely and urbane attitude to scholarship, exemption from the obligation to use knowledge for practical ends, a sense of perspective which accompanies the broad horizon and the distant view, an opportunity to give undivided loyalty to the kingdom of the mind. At the same Senate table sit men for whom the university is an institution with urgent and essential obligations to modern society; a place to which society entrusts its most intelligent young people and from which it expects to receive its most highly trained citizens; a place which society regards as the pace-maker for scientific research and technological progress. And so universities find themselves searching for a compromise.' (107)

The Committee of Vice-Chancellors and Principals

The CVCP, when united, can speak with authority on behalf of British universities. The problem is that the universities themselves differ markedly in many ways, and their variety and autonomy must sometimes - perhaps often - make it difficult to form a common view. However, when there is a fair measure of agreement, and when mutual interests require it, the CVCP makes its views known, sometimes in the form of a booklet, such as those on research and on the links with industry. (108) It is perhaps significant that there is no booklet on goals. (109)

In its 1984 submission to the UGC, in response to the Swinnerton-Dyer questionnaire, the CVCP contented itself by saying that the nature, range and purpose of university activities 'do not require elaboration.' (110) The paper went on to stress that it is the universities' contribution to fundamental research which chiefly distinguishes them from other institutions of higher education. The CVCP also endorsed the DES's statement that 'Non-university education's key contribution lies in its provision of courses specifically designed to reflect the opportunities and requirements of the country's employment market.' Universities, by implication, have other goals. Reference has already been made, in Chapter Four, to the CVCP's rejection, in the same document, of the Government's emphasis on vocationally relevant forms of study. (111)

The students

The Robbins Report quotes Confucius to the effect that it is not easy to find a man who has studied for three years without aiming at pay. There are good reasons for supposing that students' attitudes have not changed much since Confucius's day. (112)

A considerable volume of research has been carried out into what students are looking for when they enter a university. In 1977 Percy and Brennan published the results of a survey based on returns from 2,595 students from 21 institutions. (113) This established that many students had drifted into higher education without clearly formed goals, and that their aspirations tended to be formed as a result of their experiences while at a university. (114) Most students also had multiple goals, giving rise, for example, to a demand for both vocational courses and for extra-curricular activities. (115)

Startup's study of The university teacher and his world, published in 1979, presented information about student attitudes based on questionnaires completed by 321 students in one university. (116) One interesting fact to emerge from Startup's work is that the students in his sample rated research very low in importance as one of the duties of academic staff (placing it 11th in a list of 24); activities relating to undergraduate teaching were rated much higher. (117) If this were true of many students it would seem to leave plenty of scope for friction between them and their teachers.

In chapter 4 of his book Expectations of higher education: some historical pointers, Harold Silver reviews a number of other surveys of student attitudes, and concludes that a large majority of students see the university's task as preparing them for a definite vocation or occupation. (118) Many staff, on the other hand, are committed to the 'intellectual' purposes of the institution, a situation which provides further ground for potential conflict. (119) Silver also concludes, as did Percy and Brennan, that students' expectations and goals frequently change as a result of their experience of higher education. (120)

As the title of his book indicates, Silver's study was part of the larger Expectations of Higher Education Project, the research for which was carried out over the years 1980 to 1983. (121) The project included a survey of students' attitudes based on questionnaires sent to 6,000 students in their final year in 36 institutions (including polytechnics and colleges as well as universities). The survey demonstrated that in most disciplines a high proportion of university undergraduates embarked on their course mainly in order to learn more about a subject which they found particularly interesting; however, an equally high proportion expected a degree to help them to find a job and to increase their earning power. (122) Roughly a quarter of non-sandwich course students

would have preferred their course to have been sandwich based, (123) but students generally believed that course content was less important to employers than other factors such as motivation and leadership potential. (124) Finally, a large proportion of students in all kinds of institutions were satisfied with their courses and felt that higher education had fulfilled their expectations. (125)

The National Union of Students is not quite so sanguine. The Union argues in a pamphlet on The future of the universities that universities are usually established to meet essentially local educational needs, but over time they become subject to 'academic drift' and lose touch with their origins. (126) What is needed, says the Union, is more inter-disciplinary courses and greater emphasis on teaching, which 'has never been of primary importance in universities.' (127)

Conclusions about the views of stakeholders

This chapter has summarised the available evidence on the views of stakeholder groups as to what the goals of universities should be. The chapter has demonstrated that few groups can claim to have given systematic consideration to the question. The employers have perhaps the most creditable record; the Conservative Party has filled a notable vacuum with the publication of the 1985 Green Paper; and from such bodies as the DES and the UGC there is mostly silence, at least on the subject of goals. A multiplicity of opinions have been voiced by individuals, most of them critical of the universities' performance, and most critics have urged the universities towards a greater awareness of the needs of industry. These criticisms have occasionally been met with a staunch defence from those who believe that the purpose of a university is not primarily to produce engineers and accountants but to

ensure that graduates are civilised, rational individuals.

The range of views expressed by the stakeholders suggests that it would be useful to categorise the various possible goals of a university under appropriate headings. Such an analysis would facilitate the kind of discussion about goals, within stakeholder groups, which at present is notably absent. That task will therefore be attempted in the next chapter.

NOTES ON CHAPTER EIGHT

1. Child, Cooper, Hussell and Webb (1971), page 484.
2. Information provided by Mr. Norman Webb, of the Gallup Poll organisation, 7 September 1983.
3. Gallup Poll figures quoted in the Daily Telegraph (1984).
4. See Weaver (1982), pages 68 and 69.
5. See, for instance, Barnett (1979), Handy (1979) and Ashworth (1982).
6. Weaver (1982), page 70.
7. Royal Society of Arts (1982).
8. Association of University Teachers (1982), page 3.
9. Minogue (1973), page 4.
10. Barnett (1979), page 123.
11. For a full account see Silver (1981), chapter 2.
12. Ibid., page 14.
13. McKie (1981).
14. O'Leary (1981).
15. Financial Times (1982).
16. Several reports in The Times, e.g. Johnstone 1984.
17. Committee of Vice-Chancellors and Principals (1981).
18. Bacon, Benton and Gruneberg (1979).
19. See Leverhulme Report, volume 1, (Higher education and the labour market).
20. Maynard (1983), page 94.
21. Blaug (1982), page 170.
22. Confederation of British Industry (1982), page 27.
23. Ibid., pages 27 and 28.
24. Ibid., page 28.
25. Turney (1983).

26. Kogan and Boys (1983), pages 4 and 7.

27. Calculation based on data in the Statistical Quarterly, August 1982 to May 1983, published by the Central Services Unit for university and polytechnic careers and appointments services.

28. Kogan and Boys (1983), page 7.

29. Young (1984), page 456.

30. Thomas (1978), page 7. Kogan and Boys (1983) point out, on page 3 of their report, that it is sometimes difficult to identify who is the spokesman for a particular firm. An editorial in The Times, 15 August 1984, also called upon employers to declare, for the first time, whether they wanted 'education' or 'merely technical training.'

31. Finniston (1983), page 369.

32. Standing Conference of Employers of Graduates Ltd., (1982), page 2.

33. Times Higher Education Supplement (1983d).

34. Kogan and Boys (1983), page 12.

35. Cook (1973), page 9.

36. In 1984 it was argued within the University of Bath that social work and horticulture were subjects more appropriate for a polytechnic. The argument was, however, rejected.

37. Turner and Rushton (1976), page vii.

38. University of Kent (1983), page 7.

39. Ibid., page 8. Further information in this paragraph was supplied by Dr. D.B.P. Sims, of the University of Bath.

40. In 1984 the UGC decided not to continue funding the pharmacy department at Heriot-Watt University. The Principal of Heriot-Watt called a meeting of three bodies: the UGC, the University, and the Pharmaceutical Society; presumably he viewed these as equal partners in the enterprise. See Wojtas (1984). Additional informaton for this paragraph was supplied by Mr. J.I. Harris of the University of Bath.

41. Leverhulme Report, final volume (Excellence in diversity), page 14. A search of the British Education Index over the last 5 years revealed an increase in publications on professional education, but nothing at all on the influence of the professional assocations.
42. In 1976. Source: Mr. R. Wake, a member of Her Majesty's Inspectorate.
43. Flather (1982a).
44. Social Democratic Party (1982).
45. Social Democratic Party (1983).
46. Liberal Party (1977).
47. Ibid., page 3.
48. Ibid., pages 4 and 5.
49. Liberal Party (1984).
50. In a letter to the author, dated 29 January 1982. The Officer added: 'In fact it is a very long time since we can recali that this has been discussed even within educational circles.'
51. Labour Party (1973).
52. Geddes (1981).
53. Foot, Kinnock and Whitehead (1981).
54. Labour Party (1983).
55. Hogg (1982).
56. Jobbins (1983).
57. Parkes (1983), page 2.
58. See Footman (1982), page 7, for a statement to this effect by Mr. William Waldegrave, Minister of State responsible for Higher and Further Education. See also Hansard, 21 December 1981, page 763.
59. See Footman (1982), pages 6 and 7. Also Hansard, 18 November 1981, pages 301 and 307.
60. Hansard, 21 December 1981, page 763.

61. O'Leary (1982).

62. Department of Education and Science (1983c).

63. Joseph (1983).

64. Quoted by David (1981b).

65. Joseph (1983).

66. Bradley (1983), page 4.

67. Jobbins (1984).

68. Flather (1984a),

69. Geddes (1981).

70. House of Commons (1980), page xxxv.

71. Ibid.

72. Letter to the author, dated 4 March 1982, from Dr. V.J. Delany.

73. Quoted by Footman (1982), page 4.

74. Quoted by Birch and Calvert (1977), page 16.

75. See Collier (1983), page 100, for a summary of Slater and Tapper's views.

76. It forms a triumvirate with the Local Education Authorities and the teachers' unions. Collier (1983), page 99.

77. Information provided by two officers of the UGC, Mr. Callaghan, 1982, and Mr. Dickerson, 1984.

78. University Grants Committee (1984). See also Times Higher Education Supplement (1984h); the advice offered by the two bodies is fully described in a four-page supplement.

79. Times Higher Education Supplement (1984h), page iv.

80. Ibid., page i.

81. Crequer (1981).

82. Clark (1979), page 31.

83. In a letter to the author, dated 9 February 1984.

84. Halsey and Trow (1971), page 276.

85. Ibid.

86. Ibid., pages 278 and 280.

87. Ibid., page 509.

88. Scott (1982b).

89. The joint working party was set up by the UGC and the Advisory Board for the Research Councils. See Flather (1982b).

90. See Silver (1981), chapter 3.

91. Lord Rothschild produced a report in 1971 which argued that much civil research should be directed towards a specific end. See Cane (1971).

92. Scott (1983e).

93. Committee of Vice-Chancellors and Principals (1981), page 13.

94. The Vice-Chancellor of the University of Oxford, writing in Committee of Vice-Chancellors and Principals (1980), page 9.

95. See Swinnerton-Dyer (1984), page 5, and Flather (1982c).

96. Swinnerton-Dyer (1984), page 5.

97. Scott (1983d).

98. Brennan and Percy (1975), page 115.

99. Quoted by Beard, Healey and Holloway (1970), page 29.

100. Silver (1981), page 24.

101. Dancy (1981).

102. Halsey and Trow (1971), page 67.

103. Ibid., page 488.

104. Entwistle, Percy and Nisbet (1971), page 23.

105. Halsey (1979).

106. See, for example, the following: O'Hea (1981); Dancy (1981); Niblett (1981); Wiseman (1981); and even Ashworth (1982).

107. Ashby (1966), pages 69 and 70.

108. Committee of Vice-Chancellors and Principals (1980) and (1981).

109. In 1972 the CVCP did publish a report of a joint AUT/CVCP conference on The function of the university - teaching and research, but that report deals with functions and not with goals; that is to say it deals with means rather than with ends.

110. Committee of Vice-Chancellors and Principals (1984), page 9.

111. Ibid., pages 1 and 9.

112. The suggestion in Robbins (1963), page 6, is echoed by the findings of the Expectations of Higher Education Project; see Kogan and Boys (1983).

113. Percy and Brennan (1977).

114. Ibid., page 2.

115. Ibid., page 4.

116. Startup (1979), page 131.

117. Ibid., page 133.

118. Silver (1981), pages 31, 58 and 60.

119. Ibid., page 33.

120. Ibid., page 70.

121. Kogan and Boys (1983).

122. Ibid., page 5.

123. Ibid., page 6.

124. Ibid., pages 8 and 9.

125. Ibid., page 9.

126. National Union of Students (1981), page 3.

127. Ibid., pages 8 and 9.

CHAPTER NINE: A CATALOGUE OF GOALS FOR BRITISH UNIVERSITIES

It was noted at an early stage in the research that no previous researcher had drawn up a classified list of potential or actual goals for British universities. It was considered that the existence of such a list would facilitate the analysis of the operative goals of institutions and would also encourage more direct discussion of the issue: with the aid of a catalogue, individuals or groups can familiarise themselves with the range of possibilities and can select the goals which they believe should be given the greatest emphasis. The aim of this chapter is therefore to assemble a catalogue of university goals in a British context.

It will be apparent by now that the literature on universities contains a large number of statements about what the goals of universities have been, are, or should be. During the literature search, each statement about goals was listed when it was first encountered, obvious duplicates being discarded; this procedure produced 451 items. (1) Statements which were closely related to each other were then combined. The next step was to arrange the remaining statements in groups. It would have been possible to perform such an analysis from scratch, but in the event that did not prove necessary. A suitable framework had already been provided, in an American context, by Howard R. Bowen and his associates. (2) Bowen's framework was considered more useful than the other possible choice, that provided by the Institutional Goals Inventory. In his book Investment in learning, Bowen describes how he and his collaborators combed through an extensive range of material on higher education; as a result of this search they assembled a list of 1,500 goal statements which formed the basis of their analysis. The catalogue of goals provided in this chapter largely follows the arrangement of headings used by Bowen. Where necessary Bowen's catalogue has been

amended or expanded to include expressions of opinion found in the British context; in a number of instances the emphasis in Bowen's catalogue has been changed to reflect the different national ethos.

1. THE ABILITIES AND ATTITUDES OF INDIVIDUAL STUDENTS

This section takes the form of a list of abilities and attitudes; in recent years various authorities have declared these to be desirable attributes of students emerging from British universities. If the authorities do not say so directly, they strongly imply that the goals of British universities should be to instil the desired attitudes and to ensure that students acquire the desired skills. However, it is not suggested by any one authority that all students should invariably possess all these characteristics.

1.1 Cognitive learning

1.1.1 Verbal skills

Ability to comprehend through listening, reading and doing.

Ability to speak and write clearly, correctly, fluently, gracefully.

Ability to organise ideas and to present them in writing and in discussion; ability to argue a case.

Knowledge of more than one language.

1.1.2 Quantitative skills

Ability to understand statistical data and

statistical reasoning.

Ability to use computers.

1.1.3 Substantive knowledge

1.1.3.1 A broad acquaintance with the cultural heritage of the west and of this nation in particular, together with some knowledge of, and respect for, other traditions.

1.1.3.2 Broad awareness of the history and contemporary features of the worlds of philosophy, natural science, technology, art, literature and the social sciences.

1.1.3.3 A deep and detailed knowledge of one or more specific subjects, particularly in connection with training for the professions.

1.1.4 Rationality

Recognition of the importance of thinking logically; the ability so to do.

Ability and disposition to weigh evidence, to evaluate facts and ideas critically, and to think independently; ability to form prudent judgements and to make decisions; ability to decide whether strong emotional reactions are justified by facts or events.

Ability to analyse and synthesise; ability and disposition to solve problems; ability to plan ahead.

1.1.5 Intellectual perspective

Willingness to question orthodoxy and to consider new ideas.

Intellectual curiosity.

Appreciation of cultural diversity.

Ability to view events and developments in a historical and cosmopolitan perspective.

Understanding of the limitations of science and philosophy.

1.1.6 Aesthetic sensibility

Note: aesthetic sensibility is often classified under emotional development rather than cognitive learning, but since large elements of aesthetic awareness can be taught, it is included in the cognitive section of this analysis.

Knowledge of, interest in, and responsiveness to, literature, the arts, and natural beauty.

Appreciation of style; development of taste.

Participation in the arts.

1.1.7 Creativity

Imagination and originality in formulating new hypotheses and ideas, and in producing works of art.

1.1.8 Intellectual integrity

Disposition to seek and speak the truth.

Conscientiousness of inquiry and accuracy in reporting the outcomes of inquiries.

1.1.9 Lifelong learning

Awareness of the value of scholarship, research, and education.

Ability to undertake self-directed learning; ability to locate information when needed; capacity to benefit from in-service training and continuing education.

1.2 Emotional and moral development

1.2.1 Self-awareness

Knowledge of one's own talents, interests, aspirations and weaknesses.

1.2.2 Psychological well-being

Sensitivity to deep feelings and emotions and ability to cope with them: emotional stability and resilience.

Ability to express emotions constructively.

Self-confidence; spontaneity.

Ability to enjoy life despite its vicissitudes.

1.2.3 Human understanding

Capacity for empathy, thoughtfulness, compassion, respect, and tolerance - towards all others regardless of background.

Ability to co-operate.

1.2.4 Values and morals

Awareness of moral issues.

Awareness of traditional moral values.

A personal set of values and moral principles; capacity to make moral decisions.

Sense of social responsibility.

Conscientiousness; honesty.

1.2.5 Religion

An awareness of, and respect for, the varieties of religious thought.

The foundations of a personal world-view.

1.3 Practical competence

1.3.1 Traits of value in practical affairs generally

Ability to apply knowledge in order to solve practical problems.

Motivation towards accomplishment.

Initiative, energy, persistence, self-discipline.

Ability to cope with change; resourcefulness in coping with crises.

Capacity to learn from experience.

Ability to negotiate and willingness to compromise.

1.3.2 Leadership

Capacity to win the confidence of others.

Willingness to assume responsibility.

Readiness to seek advice.

1.3.3 Citizenship

Understanding of and commitment to democracy.

Knowledge of the major political philosophies.

Knowledge of governmental institutions and procedures.

Awareness of social issues and knowledge of current affairs.

Respect for, and knowledge of, the law.

Commitment to justice and peace.

1.3.4 Work and careers

An awareness of the needs of industry and commerce (through direct experience).

Ability to make sound career decisions.

Knowledge and skills directly relevant to first employment.

Adaptability.

1.3.5 Family life

Personal qualities relevant to the maintenance of a satisfying family life.

1.3.6 Leisure

Capacity to maintain an appropriate balance between work, leisure, and other activities.

Resourcefulness in finding rewarding uses of leisure time.

1.3.7 Health

Understanding of the basic principles of physical and mental health.

Participation in sport and physical recreation.

2. THE NEEDS OF SOCIETY

This section lists in broad outline a series of goals relating to the needs of society and the world in general; as before, the sources consulted have suggested that these needs should be met by the universities.

2.1 Knowledge

2.1.1 To preserve all the knowledge which has so far been accumulated, through scholarship, publications, libraries, museums, and other means.

2.1.2 To disseminate such knowledge as is required to achieve the goals relating to section 1 of this catalogue.

2.1.3 To discover new knowledge through research, both pure and applied.

2.1.4 To apply knowledge, both old and new, to the solution of practical problems in industry and commerce and in society at large. To do so both by invitation, as in contract research, and

spontaneously, through individual members of the university acting as social critics.

2.2 The arts

To act as a centre of the arts for the benefit of both students and the surrounding community, through the provision of lectures, concerts, plays, exhibitions, and other means.

2.3 The discovery and development of talent

2.3.1 To identify those individuals with particular skills which are needed and valued by society; to develop those skills; and to certify the level of skill which has been achieved by each student.

2.3.2 To provide the skilled manpower which is necessary for the maintenance and growth of national productivity.

2.3.3 To offer opportunities for study to all those who seek a university education, whether from this nation or overseas, whether possessing formal qualifications or not, whether rich or poor, on either a part-time or full-time basis.

2.3.4 To provide continuing education courses, both vocational and non-vocational.

2.4 The university experience

To provide direct satisfaction and enjoyment for both employees, students and other participants in university life.

There are a number of comments to be made about the catalogue given above. The first is that it does not include all imaginable goals. For example, it would be perfectly possible to propose that a university should teach students how to kill enemies of the state. But in fact no such suggestion has been located in the literature and it is therefore not in the catalogue.

A second point to be noted is that the catalogue concentrates on ends, not means. For example, it may be argued that in order to develop human understanding (section 1.2.3) it is desirable to arrange for students to live in halls of residence rather than at home or scattered throughout the community. But in Gross and Gambsch's terms the goal of setting up halls of residence is a process goal, rather than a primary goal, and it is therefore not listed here. The same point could be made about fund-raising and many other important university activities.

It should also be emphasised, lest there be any doubt, that not all the goals are applicable to every university or to every student: no university, however conscientious or prestigious, could achieve the miracle of transforming every graduate into a creature possessing all the attributes listed in section 1. Some of the goals are in any case controversial.

The list appears to place heavy emphasis on students, while research occupies only two lines. It should be noted, therefore, that the space devoted to the various goals is not intended to be proportionate to their

importance.

Readers will readily observe that the catalogue interlocks and overlaps: for example, many of the cognitive abilities are useful or even essential in achieving the goals relating to emotional and moral development. There is also no compelling reason why the catalogue should begin with the abilities and attitudes of students and proceed to the needs of society: the order could easily be reversed.

The catalogue is very much of its time and place; a similar list, prepared one hundred years ago, would have been very different. The present list is surprisingly short: Bowen comments on the frequency with which the same ideas recur in the work of those who write on the subject. (3) It is also overwhelmingly 'civilised', in the sense that it is suffused with western/Christian/democratic values. The emphasis is on peace, culture and tolerance, not on war, conflict and dogmatism. The perspective is international, with scarcely a hint of patriotism. Religion, which was once central to the early universities, now occupies a much less important position, and there is no suggestion that students must hold a particular set of religious beliefs.

The catalogue can be used as it stands, but it is capable of further development. For example, a computer programme could be written which would enable sixth-formers to choose the goals which they considered most important. The programme could then give them guidance on the courses, universities or extra-curricular activities which would best enable them to achieve their goals.

At first glance it may appear that there is little in the catalogue which could reasonably be rejected as a goal; but in fact, buried within some apparently innocuous phrases, there are a number of historically controversial issues. Six of those issues will be considered in detail in the next chapter.

NOTES ON CHAPTER NINE

1. All the books and papers listed in the reference section were included in this process. In addition, a considerable number of books, papers, etc. which are not referred to directly in the text were also surveyed. Statements made during the course of interviews were also included.
2. Bowen (1978), pages 53 to 59
3. Bowen (1978), page 53.

CHAPTER TEN: SIX CONTROVERSIAL ISSUES IN RELATION TO UNIVERSITY GOALS

Previous chapters, notably those on the philosophy of higher education, the history of British universities, and the views of the stakeholders, have demonstrated that there have always been differences of opinion as to what the goals of a university should be. The aim of this chapter is to examine six important areas of controversy in detail, in order to clarify the issues involved.

The six issues which have been selected are those which are judged to be the most important in the mid 1980s. They are closely related to the principal functions of British universities, which are usually described as teaching, research and public service. The issues have been selected (i) because differences of opinion on each of them reflect differences of opinion on the underlying goals, (ii) because arguments about them have persisted over many decades, and (iii) because in a time of shrinking resources the debate about them is likely to become particularly acute.

The six issues are summarised below; each is then considered separately.

Teaching: (i) whether courses should be liberal or vocational; and (ii) whether they should be broad-based or specialised.

Research: (i) whether research is an essential function of a university or not; and (ii) whether it should be pure or applied.

The role of academic staff: (i) whether a lecturer should argue a particular point of view or should allow students to form their own conclusions; and (ii) in relation to society, whether a lecturer should adopt a passive 'civil servant' role, or be an active critic and an instigator of change.

Courses: liberal or vocational?

Earlier chapters have described briefly what constitutes a liberal (or a liberal arts) education but it is now necessary to examine the concept more closely.

A lecturer at Oxford in 1914 has been quoted as follows:

> 'Nothing that you will learn in the course of your studies will be the slightest possible use to you in after life - save only this - that if you work hard and intelligently you should be able to detect when a man is talking rot, and that, in my view, is the main, if not the sole purpose of education.' (1)

That is the liberal philosophy in an extreme form. Likewise John Stuart Mill:

> 'Universities are not intended to teach knowledge required to fit men for some special mode of making their livelihood. Their object is not to make skilful lawyers, or physicians, or engineers, but capable and cultivated human beings.' (2)

The aim of liberal courses is thus to make students familiar with the

'heritage of Western civilisation' (3) and to create a community of wise and tolerant individuals. With reference to the catalogue given in Chapter Nine, liberal courses may be said to emphasise the goals listed in the following paragraphs: 1.1.3.1, 1.1.3.2, 1.1.4, 1.1.5, and 1.1.9. Many courses will also seek to develop aesthetic sensibility (1.1.6), creativity (1.1.7), intellectual integrity (1.1.8) and some of the goals listed in the section on emotional and moral development (1.2). Most supporters of the liberal philosophy would also maintain that the experience of taking a course based on these principles will develop leadership, citizenship, and the skills needed for the use of leisure and a satisfactory family life. Thus the goals of liberal courses are multiple: it is the shotgun approach as compared with the rifle.

The distinction between liberal and vocational courses is definitely not a distinction between courses in the humanities and in the sciences, though there has been a tendency to think so. (4) A vocational course is one which equips a student for employment (usually first employment) and thus contributes to successful economic performance. In extreme cases the course is the only route to certification of the right to practise as a member of a given profession; for this reason it is sometimes argued that the more appropriate term is professional education. (5)

A vocational course will usually require a student to absorb a large amount of factual information. More sophisticated vocational courses will also be designed to develop the behavioural traits which are known to be essential to satisfy the demands of employers: leadership skills, adaptability, negotiating ability, initiative, etc. The emphasis, however, will be on practice rather than theory. Referring to the catalogue given in Chapter Nine, vocational courses will tend to emphasise the goals listed in paragraphs 1.1.3.3, 1.3.1, 1.3.2. and 1.3.4.

Some implications of the two contrasting philosophies are worth

noting. The first is that support for the vocational type of course involves an acknowledgement of the right of employers, professional bodies and the state to have a measure of control over the institutions providing the courses: academic autonomy is weakened. The case for state funding, however, is strengthened. The converse applies to the liberal philosophy: academics who take advantage of their autonomy to design a course which pays no heed to the requirements of employers, professional associations or the state can, of course, please themselves as to what they include in it. But it may be harder to persuade the taxpayer to foot the bill.

It can be argued that the distinction between liberal and vocational courses is unreal, in that those students who undergo a liberal education can successfully tackle anything. Thus Dr. John Kemeny, President of Dartmouth College in the USA, claims that he was able to make a contribution to computer science not because he had ever been trained in the use of computers (there were none in his youth), but because of 'the breadth of a liberal arts education I was fortunate enough to acquire, because of learning to think in a certain way, and having been prepared to react to totally unexpected challenges.' (6) Another American, Sterling McMurrin, argues that a 'liberal education as now conceived is not useless and impractical, as many still insist. On the contrary, it is eminently practical, as it is essential to the pursuit not only of numerous vocations but of the full, satisfying life as well.' (7) It can also be argued that the best vocational courses must of necessity cover a good deal of liberal territory, because a good general education is an asset in many professions; some employers are not interested in a graduate's subject but only in his overall intellectual skills.

There is some truth in both these arguments, and, clearly, liberal and vocational courses do overlap to some extent. But the fact is that

there is a real difference between an exclusively vocational university degree course and a course which is based on the liberal arts philosophy; and the reason why they are different is that they are designed to achieve different primary goals.

Courses: broad-based or specialised?

Historically, there has been a link between liberal arts education and the broad course. Defenders of the liberal philosophy often argue that degree courses should not be too specialised but should provide an understanding of several different fields of knowledge. (8)

There is no corresponding tradition that vocational courses must necessarily be specialised. In practice many of them evidently are, and the calls from some sections of industry to include larger amounts of practical knowledge may increase the tendency. However, it is now well understood that much of the practical information which is being taught in universities will become obsolete within a decade; even for vocational purposes it may be preferable to reduce the amount of hard fact which the student is expected to absorb and to concentrate on developing skills, such as the ability to undertake self-directed learning.

The Robbins Committee was very much in favour of an increase in the number of students taking broad-based degrees, and the call for greater breadth was echoed by the Leverhulme Inquiry. (9) The Leverhulme solution was for less specialisation in the sixth-form and in the early years of higher education; (10) the universities obviously have a massive influence on the schools in that schools will try to equip pupils for university entry. The Leverhulme proposal for a modification of the sixth-form curriculum was generally welcomed by the universities, (11) but in the responses to the Swinnerton-Dyer questionnaire of 1983 not one

university favoured the Leverhulme concept of two-year broad-based degree courses. Many considered that an opening-out of sixth-form studies could only be achieved by extending degree courses to four years. (12) The CVCP has supported this view, (13) but it seems highly unlikely that financial support for such a development will be forthcoming.

Once again, it can be argued that the distinction between broad-based and specialised courses is a false one, in that both can constitute a route to the same goal, whether it be liberal or vocational. This is perhaps marginally more convincing than the argument that liberal courses will equip students for the world of work and that vocational courses can provide a good general education. Nevertheless it is clearly the case that a student who has taken a broad-based degree course will have a very different frame of reference from a student who has specialised in perhaps one area of one discipline. It is also the case that different goals can be achieved much more easily by the different types of course. For example, an ability to view events in a historical and cosmopolitan perspective (paragraph 1.1.5 in the catalogue of goals in Chapter Nine) is more likely to be developed by a broad-based history course than by a highly specialised one. Consequently it must be affirmed that the decision to offer (or to take) a broad-based as opposed to a specialised degree course is one which is ultimately based on a conscious or unconscious choice between different sets of goals.

Research: for or against?

Society demonstrably has a certain need for research, as described in paragraphs 2.1.3 and 2.1.4 in the catalogue of goals in Chapter Nine. Before considering the arguments for and against research being undertaken within universities, however, it is necessary to consider the

distinction between research and scholarship. Broadly speaking, scholarship means keeping up with the latest developments in a subject, while research means developing new knowledge. (14) There is some overlap betwen the two activities, and it is easier to make the distinction in the natural sciences than in the arts, (15) but in principle they are clearly different. (16) University charters and other publications often refer to 'the advancement of learning' and the 'advancement of knowledge'; it would be helpful if the former term were always used as a synonym for scholarship and the latter for research, but it seems unlikely that this has been the case in the past.

It must also be noted that various different kinds of research can be distinguished. In the first place, research can be divided into two: pure (or fundamental) and applied; more will be said about these categories in the next section. It can also be argued that strategic research deals with policy questions while tactical research deals with short-term problem-solving. (17) Charles Carter has described ten different kinds of research, including theory construction, observing and chronicling, experimenting, and others. (18)

It is generally accepted that, on average, British academics currently spend about one third of their time on research; (19) the AUT puts the figure at one third to a half. (20) This research is funded from two main sources in a 'dual-support' system: the basic funding is provided by the UGC in its recurrent grant to universities, and additional funds are provided, for selected projects, by the Research Councils. (21)

In view of the constant emphasis on research within the university environment, it would be easy to assume that the bulk of the nation's research is carried out there, and that nothing of consequence is done elsewhere. The CVCP claims that universities provide 'most of the fundamental and a very considerable amount of the applied research

undertaken in the United Kingdom, and are responsible for the initial research training of virtually all research workers.' (22)

The situation can, however, be viewed from a very different perspective. In a paper presented to one of the Leverhulme seminars, Dr. Stuart Blume, of the London School of Economics, pointed out that research in higher education amounts to only 10 per cent of the national research effort. (23) In 1982 a Government Minster informed a House of Lords Select Committee that the universities' contribution to research amounted to only 5 per cent of the total; (24) this estimate was recently confirmed by a Vice-Chairman of the UGC. (25)

The point to be considered here, however, is not the precise volume of research undertaken within universities, but whether any research should be undertaken in that context. After all, in some nations, notably Russia, research is carried on in institutes which have no connection with universities. (26) It is often alleged, and widely believed, that academic staff have a contractual obligation to do research. (27) Interestingly enough, the present Chairman of the UGC (Sir Peter Swinnerton-Dyer) has stated publicly that while every university teacher has a duty to pursue scholarship, nobody has a duty to do research. (28) Be that as it may, it is also frequently argued, with great force, that a teacher who is actively involved in research is a better teacher than one who is not. (29) To believe otherwise is often considered heretical, but the Leverhulme study was agnostic on the issue of whether research and good undergraduate teaching are indivisible. (30) Sir Peter Swinnerton-Dyer and Charles Carter are two eminent academics who also doubt whether there is any necessary connection between teaching and research. (31)

In summary then, it seems possible that what once appeared to be a united academic front on the issue of research as a function of universities may now be beginning to crack. It remains to be seen what

developments will result from the UGC's new policy of funding research on a selective basis. It seems likely that some departments, if not whole universities, will be funded for teaching only. (32)

Research: pure or applied?

Pure research (sometimes called basic or fundamental research) is concerned with exploring the unknown, mainly for the sheer satisfaction of doing so: the researcher follows up lines of inquiry which interest him and leaves to others the areas which do not interest him. Applied research, by contrast, is directed at solving problems which have arisen in everyday life, often in an industrial or commercial context. Pure researchers have to apply to Research Councils and persuade them to part with funds. Applied researchers are mainly approached by outside bodies and are offered money in return for seeking a solution to a specific problem. In a famous report published in 1971, Lord Rothschild argued that applied research should by definition have a customer. (33)

The CVCP claims that 'most of' the fundamental research which is undertaken in the United Kingdom is carried out in the universities; the Merrison report estimates that the proportion is two thirds, and the UGC settles for 'over half'. (34) Blume claims that the total amount of fundamental research undertaken in this country is comparatively small, (35) and it is sometimes suggested that Lord Rothschild's influence is to blame. (36)

Historically, pure research was often undertaken by wealthy gentlemen at their own expense, and politicians are sometimes reluctant to spend the taxpayers' money on it today. However, the CVCP argues that there are three major grounds for the support of pure research: (i) its essential role in providing the basic understanding of man's natural and

social environment; (ii) its function of generating and testing creative ideas which may turn out to have important applications; and (iii) the part played in the stimulation and education of students. (37) Examples of pure research projects which turned out to have important practical applications are the splitting of the atom and the discovery of DNA. (38) It is also noteworthy that if Gregor Mendel had had to apply for a research grant for his work on genetics it might well have been entitled 'How to segregate round from wrinkled peas'. This would scarcely be an obvious candidate for support, and yet the practical value of his work has been enormous. (39)

The case for applied research needs little elaboration, but just as pure research can have practical results, so the applied variety can yield fundamental insights and new knowledge. Irving Langmuir's Nobel-Prize-winning work on surface chemistry began as an effort to improve light bulbs; Louis Pasteur's work on microbiology began as a consultancy for the French beer industry; and Arno Penzias and Robert Wilson were able to learn more about the origins of the universe by using a radio antenna designed for satellite communications. (40)

These arguments that pure research can yield practical results and that applied research can generate fundamental knowledge are reminiscent of the arguments that liberal and vocational courses can lead to the same ends, and are equally unconvincing. The facts are that most pure research is significantly different in purpose from most applied research. Pure research is individualistic: its guiding principle is the interest and satisfaction of the researcher. Applied research is collectivist in the sense that it has the interests of society at heart; it could perfectly well be undertaken by a disciplined researcher who cordially disliked the activity but who regarded it as a job to be done. Pure research takes a long view; applied research concentrates on the problems close at hand.

In recent years, public opinion has clearly favoured the applied variety.

Lecturers: expository or didactic style?

The fifth controversial issue relates to the teaching role of lecturers.

There are some facts about which there is virtually no dispute. For example, we can identify two chemicals which, if mixed together at a certain temperature, will explode. When teaching students about these two chemicals, a lecturer will tell 'the truth': that is to say, he will inform the students that under certain specified conditions, mixing these two chemicals together will cause an explosion with the accompanying risk of injury or death.

In many cases, however, a lecturer will find himself teaching students about subjects which are open to dispute. In history, for example, there may be conflicting accounts of events; in medicine there may be opposing views about the best way to treat a patient's illness; and in management studies we come across contrasting styles of leadership for business enterprises. What is the lecturer to do then? Is he to explain the issue as fully as possible, and allow students to make up their own minds? Or is he to persuade students to accept the view which he himself considers to be the right or best one? In other words, should a lecturer adopt an expository or a didactic style?

There is a long-standing tradition in British academic life that, whenever controversial material is being dealt with, the lecturer has a moral responsibility to present both sides of the issue objectively. (41) Despite the argument that security of tenure is provided for academic staff so that they should not be inhibited from expressing unpopular views, there seems to be great resistance to the idea that freedom of

expression extends to a right to convert students to a particular point of view. A recent survey of the general public showed that one in two of those questioned believed that homosexuals, 'revolutionaries' and 'racist extremists' should be barred from teaching in higher education. (42)

In practice, presenting a neutral point of view may not be easy. Dr. Paul Hirst, of the University of London Institute of Education, has described how some of his students criticise him for not 'coming clean at the outset'. He suggests that a lecturer's best plan may be 'to explore ideological issues as widely as possible, state his own position, and assess students' responses as neutrally as possible.' (43)

The acuteness of the lecturer's dilemma varies from subject to subject, but politics, religion, medicine and social studies all provide difficult situations. The lecturer may believe passionately that a particular view is the right one; but he has to make a second judgement, of a moral nature. Should he seek to persuade or convert his students, or should he content himself with placing the facts before them? As has been the case in all the other issues discussed in this chapter, the lecturer's decision will ultimately reflect a conscious or unconscious judgement about the goals of university education.

Lecturers: passive or active role?

The last of the six controversial issues to be considered in this chapter concerns the relationship between academic staff and society as a whole.

The view has been advanced in the past that one of the services which universities can render is a serious and direct criticism of the society of which they are a part. (44) As noted above, tenure is often claimed to have been granted to academics in order to make them

immune from penalty or pressure when expressing unpopular views. (45)

The Carnegie Commission explored this issue in some depth, (46) and concluded that the so-called 'critical function' of universities involves three activities: (i) developing in students a capacity to think critically; (ii) allowing individual members of the university to act as social critics; and (iii) the taking of direct action against society by the university itself (which the Commission opposed). (47)

The idea that academic staff might adopt the role of active critic and instigator of change is a comparatively recent one. The earliest universities were monastic in origin; the teachers in them remained unamrried and uninvolved in public or civil life. (48) Today, however, a member of academic staff has a choice of roles. If he has a high reputation is his field he may be approached by government bodies or commercial organisations for information and advice. He may choose to sit passively and wait for such approaches, and when they arrive he may adopt an expository stance: that is to say, he may provide information, set out both sides of the issue, and generally act as a civil servant is traditionally supposed to act, leaving the policy decision to others. However, it is equally possible for an academic to adopt a much more positive stance; furthermore, he need not limit himself to the areas of his professional expertise. This active role would involve not just the presentation of neutral facts but the arguing of a forceful case with all the tools available for that purpose. In some cases it could involve direct political action, such as standing for office, participating in demonstrations, or even breaking a law which was considered unjust. In the past, many important social changes have resulted from just such activities: gains in women's rights and improved conditions for workers are obvious examples.

Universities vary in their attitude to the academic as social critic.

Some try to maintain a policy of 'civic celibacy', restricting participation in extra-mural activities; others expect their academic staff to take their civic responsibilities seriously. (49) In a recent editorial, The Times Higher Education Supplement urged that the critical role of universities should be reaffirmed, claiming that 'higher education can fairly be described as a system of institutionalised subversion.' (50)

Academic staff themselves vary in the extent to which they are prepared to become involved in 'social action': as a result of their training, scientists tend to be particularly reluctant to express an opinion unless they are absolutely sure of their facts. In a recent paper, based on Australian experience, Martin argues that most social activists are not academics but students and ex-students, with a sprinkling of junior staff. (51) This is in a sense surprising, because, as Martin points out, academics are well placed to identify social problems and to take effective steps towards finding solutions. Martin suggests that one reason for academic reluctance to become involved is that those who do are passed over for promotion or are penalised in other ways. Nevertheless, he suggests that academic staff are on average more active than some other groups such as company executives.

An academic is a citizen, and is therefore just as entitled as anyone else to play a part in the discussion of social issues. But the academic is also an expert in a particular field of study, and as such he has the potential to make a more significant contribution than most citizens. What the academic will always have to decide is whether, in relation to society, he will adopt a passive or an active role.

Conclusions about the six controversial issues

This chapter has described six controversial issues in relation to

university goals. It is not suggested here that there is any 'right' view about any of the six issues; powerful arguments can be put forward on either side. However, it is readily observable that organisations which are united around an agreed set of goals are more efficient and more effective than organisations which are continually at war with themselves and with their environment. This is as true of universities as of any other organisation. It would clearly create severe difficulties for a university if the attitudes of the various groups within it, towards any of the six issues described in this chapter, were markedly different. It would create even more difficulties if the attitudes of those within the university differed significantly from the views of the politicians and the taxpayers who provide the funds.

It may be argued that, in practice, severe differences of opinion between such groups do not occur. Students who seek a vocational education do not go to a university with a 'liberal' ethos; teachers who do not wish to undertake research are prevented from joining the staff of a university in the first place. The essence of these arguments is that the continuing political process ensures that views of the stakeholders in any particular university are in a state of equilibrium; any differences of opinion which do occur will be marginal and will merely serve to make minor adjustments to what is basically an agreed set of goals.

There is much sense in these arguments: universities sometimes do develop an individual character which is readily recognisable. But the earlier chapters of this thesis show that there was a large post-war growth in universities. That growth was followed by a gradual loss of faith in higher education in society as whole; in recent years the public's attitude has been made manifest in a serious reduction in university funding. Ample evidence has also been provided in this thesis to show that there are not only differences of opinion between those who work in

universities and those outside it, but also within universities. Consequently, any group which has views on university goals which it wishes to see implemented would be well advised to find out what the views of other influential groups are, and to monitor changes in opinion as they develop. Those who do not take this precaution are likely to receive some unpleasant shocks, as was the case in those universities which were hardest hit by the 1981 cuts.

There are a number of ways in which interested parties can obtain information about the views of stakeholder groups. One way is to review the official statements of such groups, and to interview some of their members; such steps have been taken in the course of this research, and the results have been described in earlier chapters. One other significant means of obtaining information is to sample opinion through the use of a questionnaire, and that method of research has also been used to provide information for this thesis. The design and administration of the questionnaire, together with the results which it yielded, will now be described in Part Three.

NOTES ON CHAPTER TEN

1. Quoted by Middlemas (1977), page 99.
2. Quoted by Bowen (1978), page 40.
3. This is the theme of the famous Harvard University report on general education. See Ashby (1974), pages 11 and 12.
4. For a discussion of this point see Beard, Healey and Holloway (1970), page 33.
5. See University of Aston (1981), page 2.4. The reference to successful economic performance is derived from Competence and competition; see Institute of Manpower Studies (1984), introduction.
6. Quoted by Bowen (1977), page 12.
7. McMurrin (1976), page 9.
8. See Bok (1974), page 4.
9. Times Higher Education Supplement (1983b).
10. Swinnerton-Dyer (1983), question 26. See also Leverhulme Report, final volume (Excellence in diversity), page 4.
11. Ibid, question 27.
12. Times Higher Education Supplement (1984f).
13. Committee of Vice-Chancellors and Principals (1984), page 7.
14. Caine (1969), page 36; Dainton (1981), page 15; Swinnerton-Dyer (1983), question 17.
15. Swinnerton-Dyer (1983), question 17. Also Swinnerton-Dyer (1984), page 10.
16. Caine (1969), page 36.
17. A distinction made during the Leverhulme discussions. See Flather (1982c).
18. See Carter (1980), chapter 8.

19. This figure is based on the CVCP 'diary' research project of 1969; see Committee of Vice-Chancellors and Principals (1972a). The figure is accepted by Moore (1984), page 611. Beverton and Findlay (1982) suggest that the true figure may be lower.
20. Association of University Teachers (1983), page 10.
21. See Committee of Vice-Chancellors and Principals (1980), page 49, for a fuller discussion.
22. Committee of Vice-Chancellors and Principals (1984), page 9.
23. Blume (1982).
24. Turney (1982). The figure of 5 per cent (or less) was endorsed by the Leverhulme Inquiry. See Leverhulme Report, final volume (Excellence in diversity), page 52.
25. Moore (1984), page 610.
26. Robbins (1980), page 6.
27. See, for example, Association of University Teachers (1983), page 10.
28. Reported by Crequer (1983).
29. See, for example, Committee of Vice-Chancellors and Principals (1980), page 9, and Times Higher Education Supplement (1984).
30. Leverhulme Report, final volume (Excellence in diversity), page 15.
31. See Swinnerton-Dyer (1984), page 11, and Fowler (1982), page 138. Professor Niblett also accepted this point. Other academics who have questioned the necessary connection include Professor Elton (see Moore (1984), page 616), and Caine (1969), page 36.
32. Swinnerton-Dyer (1984), page 12. The 1985 Green Paper says that there is no evidence that all academic staff must engage in research (paragraph 5.4).
33. Booth (1983). Swinnerton-Dyer (1984), page 13, makes the same distinction.

34. See Committee of Vice-Chancellors and Principals (1980), page 5, Flather (1982b), and University Grants Committee (1984), page 15.
35. Blume (1982).
36. See Times Higher Education Supplement (1982b).
37. Committee of Vice-Chancellors and Principals (1980), page 5.
38. Times Higher Education Supplement (1982b).
39. Bowen (1979), page 7.
40. Ibid.
41. See Passmore (1984a).
42. Flather (1984b).
43. Hurst (1983).
44. Burgess (1979), page 146.
45. Martin (1984), page 19.
46. Carnegie Commission (1973), chapter 7.
47. Ibid., page 43.
48. Passmore (1984b).
49. Ibid.
50. Times Higher Education Supplement (1984b).
51. Martin (1984), page 17.

PART THREE

CHAPTER ELEVEN: STEPS TAKEN TO MEASURE THE ATTITUDES OF STAKEHOLDER GROUPS

Part Three of this thesis records the steps which were taken to measure the attitudes of certain stakeholder groups towards the six issues which were described in the previous chapter. This procedure was carried out (i) to identify a satisfactory method of measuring attitudes towards important university goals in a British context, and (ii) to obtain information which was of value in itself.

This chapter records how a questionnaire was designed and administered. In Chapter Twelve, the results which were obtained from this procedure are described and the reliability and validity of the questionnaire are assessed.

Introduction

Organisation theorists argue that to be fully effective an organisation must have clearly defined goals: that is to say, the individuals or the groups which make up the organisation should ideally agree on what the goals of the organisation are. Similarly, if it is to achieve its goals easily, or at all, the organisation should be in tune with its environment: that is to say, the goals of the organisation, and the means used to achieve them, should be acceptable to the rest of society. (1) If the organisation theorists are correct, then the level of agreement on goals within a group, and the congruence of that group's views with the views of other groups, will be important factors in the successful functioning of universities.

Some observers have claimed that university stakeholders have widely disparate views, both as individuals and as groups, leading to a

situation within institutions which borders upon anarchy. (2) It is certainly true that in recent years British universities have not been perfectly in tune with their environment: there have been frequent complaints from employers, for example, (3) and politicians have not only imposed financial cuts but have demanded changes in the balance of subjects taught. (4) But is it really true that British stakeholder groups have a high level of internal conflict? And how extensive are the disagreements between, say, academic staff and employers?

As a result of the research recorded in the earlier chapters of this thesis it was decided that it would be of value (i) to obtain more detailed information about the level of agreement on certain goals within certain stakeholder groups, and (ii) to establish the extent to which the views of the various groups differed from each other. It was hoped that the findings might suggest action which was needed to enable the universities covered by the research to become more effective. It was noted, however, that British universities are independent, autonomous bodies which have been established for different reasons at different times; they tend to differ not only in size but also in character. (5) The point, therefore, was not so much the attitudes of groups on a national basis: the important factor was judged to be the views held by stakeholder groups within particular institutions.

In light of the above considerations, it was decided to design and administer a questionnaire in order to survey the views of certain stakeholder groups with particular reference to two universities. The University of Bath was selected as being of special interest to the researcher, and one other university was chosen for purposes of comparison. The two universities were <u>not</u> selected because they were held to be representative of the system as a whole. (See below for details of how the choice was made.)

The aims of the questionnaire

The chapter on American research into the goals of universities drew attention to the Institutional Goals Inventory, an ambitious instrument which assesses views on twenty (or more) issues. It was considered unlikely that stakeholders in the British context would complete a questionnaire of similar length; consequently it was decided to restrict the survey to the six issues which were discussed in the previous chapter. The questionnaire was designed to establish whether significant differences of attitude could be detected towards the following:

1. 'Liberal' degree courses as opposed to vocational degree courses.
2. Broad-based courses as opposed to specialised courses.
3. Research - whether it is an essential activity for a university or not.
4. Research - whether it should be pure or applied.
5. The lecturer's role in relation to students -
   whether the lecturer should allow students to form their own views, or should guide them towards particular conclusions.
6. The lecturer's role in relation to society -
   whether he should act as a 'civil servant', passively supplying information to society about issues of public importance, on demand, or whether he should act as a leader of opinion and actively try to move society in a particular direction.

Insofar as it succeeded in measuring attitudes towards these issues, the questionnaire would reveal attitudes towards the underlying goals.

Stakeholder analysis (6) demonstrates that many groups have legitimate interests in the activities of universities, but with the resources available to the researcher it was not possible to measure the attitudes of all such groups. It was necessary to concentrate on four groups, which were selected partly because of their importance in the decision-making process within particular universities, and partly because of their influence at national level. The groups were:

Academic staff in the University of Bath and the Comparator University.

Students in the University of Bath and the Comparator University.

Conservative and Labour Members of Parliament (MPs).

Employers who recruit from the University of Bath and the Comparator University.

It is stated above that the questionnaire was intended to measure attitudes. What is an attitude? K.C. Thomas tells us that 'any number of definitions have been proposed with little agreement amongst researchers on an explicit definition.' (7) Thomas goes on to point out, however, that an attitude has three components: knowledge, feelings, and behavioural tendencies. (8) An attitude is determined in large part by knowledge, the extent of which will differ between individuals; the knowledge will create feelings of different strength within different individuals, and the feelings will determine action.

Attitudes are measured by means of attitude scales, the purpose of which is 'to provide a quantitative measure of an individual's relative position along a unidimensional attitude continuum.' (9) In other words, if we imagine a whole spectrum of attitudes ranging from, say, a highly unfavourable attitude towards censorship at the one end, to a highly

favourable attitude towards censorship at the other, an appropriately designed questionnaire will allow us to place an individual (or group) at some point along the line and to compare that individual (or group) with others. There is no proof that this model of a linear continuum divided into equal segments is a true representation of reality, but it does make comparisons easier. (10)

In summary, the immediate aim of the questionnaire was to permit comparisons to be made between the attitudes of the named stakeholder groups to the six stated issues. The second aim was to determine not so much whether differences existed but whether any of those differences were important in academic or political terms for the University of Bath. Furthermore, it was considered that the questionnaire would only be of value if it were to function as a diagnostic tool, i.e. as a pointer to conflicts which might arise in the future. There would be no great value in an instrument which confirmed that there were conflicting views between groups, if that fact was already apparent. The final aim of the survey was to provide evidence as to whether an instrument of this kind was of value in the British context. A large amount of similar work has been carried out in the United States, but virtually none in the United Kingdom. (11)

Survey research is not, and cannot be, an exact science. (12) At best questionnaires can only assess 'avowed attitudes' and not 'enacted attitudes' - in other words, a respondent may declare that he is in favour of a certain line of action, but for all manner of reasons he may decline to act on his views. Furthermore the results provide only a 'snapshot' of attitudes, valid for a particular group at a particular time. Nevertheless, a systematic sample survey provides more accurate measurements of populations' attitudes than can be provided by other means, (13) and it is therefore worth undertaking.

The choice of hypothesis

Writers on educational research advise readers who intend to use quantitative methods that they should set up and test a hypothesis. (One definition of a hypothesis is that it is an educated guess.) (14) The procedure which is usually recommended is that the educational researcher should define a population, select a random sample from that population, specify a hypothesis and then carry out a test to establish whether the hypothesis is supported or rejected. (15)

There are, broadly, two ways in which hypotheses may be phrased or expressed. In the first place, using the research interests of this thesis as the example, it would be possible to test the truth of a whole series of positive statements such as the following:

> Academic staff at the University of Bath will value research more highly than other groups in the survey.
> Students at the University of Bath will value vocational courses more highly than students at the Comparator University.

Alternatively, the hypothesis can be couched in negative or 'null' terms, as follows:

> There will be no difference between the views of the groups on the issues covered by the questionnaire.

In either case, the hypotheses which are stated above would need to be translated into a statistical form in order to be tested by quantitative methods. The advantage of setting up a hypothesis, in whatever form, is that the researcher is required to think carefully before embarking on

what may be a time-consuming and expensive exercise.

In the present instance it was decided to express the hypothesis (to be tested statistically) in the null form, as follows:

> There will be no statistically significant differences (at the 0.01 level of probability) between the means of the sample groups of respondents on any of the six issues covered by the questionnaire.

The basic design of the questionnaire

A review of the relevant literature revealed that the aims of the proposed survey could best be achieved by means of a Likert questionnaire. (16)

Likert questionnaires, named after their inventor, (17) are designed to assess attitudes. They usually consist of a number of short statements (often 10 or 20); the respondent is invited to state whether he agrees or disagrees with each statement, usually on a five-point scale varying from 'strongly disagree' to 'strongly agree'. The use of a number of statements, rather than one, has been found to reduce the risk of any bias in the phrasing of the statements. (18) The individual's total score, for the questionnaire as a whole, is used to assess his attitude to the issue in question, i.e. his position on the scale. When it is intended to assess the attitude of groups, it is usual to calculate the mean of the scores of the members of the group.

One difficulty in the present instance was that it was intended to assess the attitudes of groups to six separate issues, which in effect meant that there would have to be six separate scales. It was judged inadvisable to use 10 to 20 statements for each of these scales, on the grounds that the questionnaire would then have become so long that the

number of those prepared to fill it in would have been unacceptably reduced. However, the American Institutional Goals Inventory has demonstrated that satisfactory results can be obtained by using four statements to assess views on each goal, and the same principle was therefore adopted for this questionnaire. It was considered that 4 statements on each of 6 issues, suitably intermingled, would constitute an instrument which could yield informative results while remaining brief enough to encourage a high response rate. In the event, as will be described below, that judgement proved to be correct.

A common device in Likert questionnaires is to phrase statements in both a positive and a negative form, reversing the scores for the answer to the negative statement. For example:

I like to make my own decisions. (1 - 5)

I prefer other people to make decisions for me. (5 - 1)

On a five-point scale, an individual who 'strongly agreed' with the first statement would score 5. The same individual would be likely to 'strongly disagree' with the second statement, and the scores would therefore need to be reversed in order to place the individual accurately on an 'attitude continuum'.

It was decided that in the present questionnaire there would be 2 positive statements on each of the 6 issues, and 2 negative statements with scores reversed. For each issue, the individual's mean score out of 5 would be calculated; this was preferred to a total score out of 20 on the grounds that a total score might suggest to readers of the research report that the instrument was capable of finer shades of measurement than was believed to be the case. Finally, a mean score for each group on each issue would be calculated. This would make it possible to place

each group on a continuum for each of the 6 issues; for example, a group favouring liberal education would have a mean score of somewhere between 1 and 3, while a group preferring vocational education would score between 3 and 5. It is the relative position of each group which is the principal source of interest in the results of such an arrangement. (19) However, a mean score of itself reveals nothing about the extent of the agreement or disagreement among the individuals comprising the group; it was therefore decided to calculate the standard deviation of the population around each of the means, and to present the results graphically, so that readers of the report would be able to judge the spread of opinion within any particular group on any one issue.

In order to support or reject the hypothesis, it was decided that an analysis of variance test would be carried out on the data relating to each issue, thus establishing whether or not there were any statistically significant differences between the figures for the various sample groups; this is further discussed in the section on the statistical analysis of the results, below. From the outset, however, it was recognised that the key point was not whether there were any statistically significant differences between the sample groups, but whether any academically or politically important differences existed. The practical implications of the results were always the centre of interest.

The choice of statements

As indicated in the previous section, a Likert questionnaire normally consists of a number of statements; suitable statements either have to be found or be specially written.

The literature on a given subject will usually yield a number of

quotations which are likely to provoke agreement or disagreement among respondents; interviews are another useful source of comments. However, not all statements are equally useful when it comes to designing a questionnaire which can assess attitudes. Some means therefore has to be found of separating the more suitable statements from the less suitable.

This problem has been thoroughly researched by others, and most books on questionnaire design set out the procedure which should ideally be followed; the full procedure is only possible if time, money and other resources are available in large quantities. (20) The researcher should preferably assemble a pool of 20 or more potential statements, with an equal number phrased in a positive and negative form. This pool of statements is then administered in questionnaire form to 100 or more respondents who are representative of the group(s) whose attitudes will ultimately be assessed. A statistical analysis of the results is then carried out to 'purify' the pool, i.e. to determine which statements are most effective in discriminating between the two extremes of opinion on the given topic.

In the case of the survey described in this chapter, it was intended to assess attitudes to 6 different issues, which ideally would have meant assembling 6 pools of about 20 statements. It would also have been necessary to find 100 or more respondents who were willing to fill in a questionnaire consisting of 120 statements; or alternatively, 6 different groups of 100 who were willing to respond to 20 statements. It was decided at an early stage that this was not a practical possibility.

An alternative method, which is less demanding of resources, is for the researcher to select his own set of statements according to appropriate criteria, and to carry out a small pilot test; after any necessary modification the questionnaire is then administered to the appropriate group(s) and a test is carried out afterwards to ascertain how

valid and reliable the results are. This modified procedure carries with it the risk of failure, in that certain statements may prove to be unsatisfactory after the questionaire has been used; however, it constitutes a compromise which may be necessary. If the results prove satisfactory, nothing has been lost; if they prove unsatisfactory, the researcher will have demonstrated the problems which exist in the area, and that in itself may be of value. The modified procedure for the selection of statements was therefore the one which was adopted.

It was decided that the 4 statements on each topic would be designed to assess each respondent's attitude towards what his own university should be doing, and not the respondents' assessments of what the university actually is doing. It will be recalled that much American research, notably the Institutional Goals Inventory, is designed to measure respondents' judgements of both the 'should be' and 'is' dimensions; this permits a measurement to be made of the discrepancy between the two, which in turn allows the researcher to assess which issues require the attention of the university's management team. However, it was judged in the present investigation that to invite respondents to consider both the 'should be' and 'is' aspects of each issue would once again complicate and lengthen the questionnaire in a way which would reduce the response rate.

Several decades of experience in the use of Likert questionnaires have made it clear that the most suitable statements have certain characteristics in common: for example, they do not contain double negatives. The criteria for suitable statements are described in standard texts on questionnaire design. (21) It was considered that the main difficulty in the present instance was that the various stakeholder groups might well have a different concept of the meaning of such phrases as 'pure research' or 'applied research'. The average intelligence of the

members of all the groups in the survey is probably high, but terms which might have different shades of meaning for different groups were nevertheless avoided as far as possible.

Bearing in mind the criteria referred to above, four statements on each of the six issues to be assessed were drafted and were refined repeatedly, both in the light of the researcher's own second and third thoughts on the matter, and in the light of comments from academic colleagues with experience in questionnaire design. The 24 statements which were eventually chosen are set out below. In each case the score to be allocated is indicated in brackets after the statement: for example, 1-5 means that a 'strongly disagree' response scores 1. Also in brackets, to the right of each statement, is a number which indicates the statement's position on the questionnaire, ranging from 1 to 24.

(i) Degree courses: liberal or vocational?

University degree courses should be designed to meet the needs of employers. (1 - 5) (24)

A University degree course should prepare a student for a specific career. (1 - 5) (1)

The main aim of university degree courses should be to produce well-rounded human beings. (5 - 1) (7)

A university degree course should be designed to equip you for life in general. (5 - 1) (13)

(ii) Degree courses: broad-based or specialised?

The best degree courses are those which study one main subject in great detail. (1 - 5) (8)

A degree course which covers a number of subjects in moderate depth is likely to be a waste of time. (1 - 5) (14)

Students who are taking science degrees should also be taught about the arts. (5 - 1) (2)

Students who are taking arts degrees should also be taught about science. (5 - 1) (23)

(iii) Research: for or against?

Universities should not be concerned with research. (1 - 5) (20)

A university lecturer can be very good at his job without discovering any new facts about his subject at all. (1 - 5) (17)

A university lecturer should try to discover new facts about his subject through research. (5 - 1) (5)

The discovery of new knowledge through research should be a vital aspect of a university's work. (5 - 1) (11)

(iv) Research: pure or applied?

Lecturers should use their knowledge to help solve the problems of industry and commerce. (1 - 5) (6)

The most valuable kind of research is that which produces direct benefits, such as a cure for a disease. (1 - 5) (19)

Lecturers should research into any subject which interests them, even if it has no obvious practical value. (5 - 1) (12)

Scientists in universities should not worry about the practical problems of industry. (5 - 1) (18)

(v) Lecturers: expository or didactic style?

A lecturer who has strong views on religion or politics should try to convert students to the cause he believes in. (1 - 5) (9)

A lecturer should always advise students as to which side of a controversial issue they should support. (1 - 5) (15)

A lecturer should allow students to form their own conclusions. (5 - 1) (22)

A lecturer should adopt a neutral position in presenting both sides of every argument. (5 - 1) (3)

(vi) Lecturers: passive or active role?

Lecturers should try to change society through direct involvement in public affairs. (1 - 5) (21)

Lecturers should be prepared to stand up and be counted on issues of public importance. (1 - 5) (10)

Lecturers should not become involved in public controversy. (5 - 1) (16)

Lecturers should refrain from taking sides outside the university on issues of public importance. (5 - 1) (4)

Much advice is available in the literature on the order in which statements should be presented in a questionnaire. (22) Some of the advice is conflicting, but the important point is that the order should not be random: the researcher must assemble the statements in a way which

will encourage the respondent to begin, to persevere, and, having finished, to return the completed questionnaire.

A questionnaire normally has a title, to which careful thought should be given. In this instance, bearing in mind the groups to whom it would be administered, it was decided that 'Teaching and research in universities' would be appropriate.

The layout of the questionnaire

Once again, extensive advice is available on making the questionnaire attractive and interesting. (23) Few factors are more damaging to the response rate than for an individual to receive a questionnaire which immediately appears to be long, complicated and difficult to read. The questionnaire should ideally be pleasing to the eye, with a few straightforward instructions at the beginning and a note of thanks at the end. Everything should be made easy for the respondent; thought must also be given to making the task of data-processing the responses as straightforward as possible.

Bearing these considerations in mind, a title page was prepared by the University of Bath Printing Unit, and the text was set out on a typewriter within a hand-drawn framework. The questionnaire was printed in black on both sides of an A3 sheet, folded to A4. A copy of the end result is included in the thesis as Appendix Six.

Pretesting

Authorities on questionnaire design agree that the pretesting of an instrument is an important stage in its preparation. (24) Pretesting consists of administering the questionnaire to a small group of

respondents, preferably in the researcher's presence; problems which have arisen can then be discussed at the time, or may become clear from comments written on the questionnaire, items left blank, etc.

Following this procedure, a draft of the questionnaire was administered to a group of ten postgraduate students in the School of Education at the University of Bath. This pilot test established that the average person could complete the questionnaire in five to ten minutes. The group then discussed the questionnaire in detail. As a result of this discussion various changes were made in the wording of the statements and in the layout of the questionnaire. (In the previous section the statements are given in their final, modified, form.)

The choice of universities

Earlier in this chapter it was stated that the questionnaire was to be administered to four stakeholder groups, not on a national basis but in relation to two universities. The first university selected was the University of Bath, where the researcher is currently employed. It was decided that it would be valuable to administer the questionnaire to the same groups in at least one other university. This was considered desirable for two reasons: in the first place, the results from a second university would be interesting and potentially valuable in themselves; they might highlight the situation in the University of Bath. The main reason, however, was that the second set of results might act as a check on the effectiveness of the instrument. It is commonly acknowledged that British universities are similar in their academic standards but different in their atmosphere or institutional ethos. (25) It was hoped that, by choosing a comparator university which differed from the University of Bath as markedly as possible, in certain important respects,

it would be possible to demonstrate that the instrument was capable of reflecting real differences of opinion. It was recognised at the outset that such a proof of the instrument's power of discrimination might not be forthcoming: failure to detect any differences between groups at the two different universities might simply mean that the stakeholder groups actually shared common views.

The next stage was to select a university which was significantly different from the University of Bath. Bath itself was founded in 1966 and was formerly a College of Advanced Technology. Not surprisingly, it retains a heavy bias towards science and technology, with Engineering being one of the largest Schools. Only one third of the students study arts subjects, and the arts courses which are on offer are notably limited in scope: it is not possible to take a degree in History or English, for example. About 60 per cent of the students are taking sandwich courses, and the University's Charter calls upon it to work in close association with industry and commerce; few of the University's graduates experience any difficulty in finding employment. In summary, the courses offered by the University of Bath may be said to be largely vocational. Academic staff are strongly encouraged to undertake research; given the terms of the Charter, applied research is just as acceptable as pure. (26)

Two analyses of the typology of universities proved to be useful in the search for a comparator institution. Ashworth argues that the parameter which is most strongly correlated with institutional ethos is the ratio of the number of students of science and engineering to those studying the arts or the social sciences. Ashworth's graph showing the distribution of universities according to this criterion, together with their overall size, shows that universities form three clusters, which he calls technological, large general, and arts-oriented. (27) Dolton and Makepeace have developed a similar typology which takes into account a

much larger number of factors but which again yields an engineering and technology cluster and an arts and social sciences cluster. (28)

Clearly, the best comparator would be an institution which fell within the arts group in both typologies. It was also considered desirable to find a university which was well separated geographically, and preferably one which offered broader-based and more liberal courses than Bath. Relative size and the proportions of men and women in the student populations were not considered crucial factors.

In the event several universities met the criteria and any of them would have made a satisfactory comparator; the decision on the final order of suitability was a subjective judgement. The Secretary and Registrar of the first-choice institution was approached and permission was requested to distribute the questionnaire to samples of the academic staff, the first-year students and visiting employers. After some delay, the first-choice institution refused to co-operate on the grounds that the staff and students were already overburdened.

The Registrar of the second-choice university was then approached, and after careful consultation with his colleagues he agreed to co-operate. However, it was requested that the comparator institution should remain anonymous; consequently, only a limited description of the university in question can be offered, and the sources of information about it cannot be identified.

The Comparator University is about the same age and size as the University of Bath, but it is situated in the east of England. Two thirds of its students are taking 'arts' subjects, and no sandwich courses are offered. English, Law and History are the major disciplines, and the first year of study is broad-based, enabling students to delay the choice of their final specialisations. There are no courses in technological subjects and graduates of this university find it harder to get jobs than do Bath

students. In its response to the 1983 UGC questionnaire, the Comparator University placed great emphasis on inter-disciplinary study, on the pursuit of truth and sound learning, and on the development of critical judgement. The University stated that 'the main task of a university is not to provide a vocational training but rather to teach students to think with a rigour which will stand them in good stead later in life.'

The samples

A researcher who wishes to find out what a particular group of people think about a particular topic can do so by questioning all the individual members of that group. However, research over several decades has established that this is unnecessary. A less laborious procedure is to seek the views of a small sample of the total population. Provided the sample which is selected is truly representative of the population as a whole, the views held by the sample will be the same as the views held by the entire group. (29)

Sampling theory requires that the sample should be representative of the total population in all respects, and obtaining such a sample may prove difficult in practice. However, provided appropriate care is taken, any differences between the data provided by the sample and the values of the population as a whole will be small. That difference is known as sampling error, and its approximate size can be calculated. In general, the larger the sample, the smaller the sampling error will be; the decision on the size of sample to use is therefore one which depends partly on the degree of error, or uncertainty, which is acceptable, and partly on factors such as cost. Another important point is to ensure that the sample provides sufficient responses to enable the researcher to analyse statistically the views of all the sub-groups in which he is interested.

A number of different procedures are available for drawing a representative sample from a given group. The first requirement is a satisfactory sampling frame, i.e. an accurate list of the population from which the sample is to be taken. Simple random sampling is theoretically satisfactory, but it is laborious and is little used. Systematic sampling is more common: this method involves the use of a random number to pick the first name on a list, and then every tenth or twentieth name is taken, as necessary. Many sampling frames are alphabetical; others are stratified in some way, for example by listing men first and women second. Stratification can be an aid to precision if the stratification is related to the subject of the survey.

As mentioned above, it is usually true that increasing the size of the sample will reduce sampling error. However, it is also true that the larger the sample, the more likely it is that differences between the means of two groups will be found to be statistically significant. There would have to be a very large difference between a mean value derived from 6 students at the University of Bath, compared with the mean of 6 students at a comparator university, if that difference was to be declared statistically significant. But with 600 students in each group, a much smaller difference could be statistically significant. Johnson points out that 'this situation has caused endless mischief' in educational research. (30) An essential point to grasp is that 'statistical significance does not indicate real world consequences', (31) and vice versa. If analysis of variance is to be carried out, the researcher is advised that a sample size of at least 30 is recommended; (32) when comparing one group with another, the samples should also be of the same size and should be drawn from comparable sampling frames.

All the above theoretical considerations were taken into account in deciding how to select the samples to which the questionnaire under

discussion would be administered. Among other factors which were considered were the cost of printing and postage, and the likely response rate; the latter was forecast at 50 per cent.

The final decision was to administer the questionnaire to samples of 75, drawn from each of the 8 groups which had been selected. The samples would thus be of the same size, but would not be the same fraction of each group.

The 8 groups listed below are the smallest groups considered in the survey: in other words, although it would have been interesting to examine the views of, say, professors compared with lecturers within the overall academic groups, it was decided that such analyses were outside the scope of the present research. Details of the groups, sampling frame, etc. are set out below. It will be noted that the sampling frames were not identical, in the sense that some were stratified and some were not. However, since stratification is an aid in reducing sampling error, it was decided to use such a frame where it was available.

(i) University of Bath students

The sample was drawn from first-year students only. Brennan and Percy have shown (33) that students' goals and aspirations change as a result of their experience in higher education, and it was therefore decided to test the views of students as early in their university careers as possible. It might well have been more interesting still to sample the views of sixth-formers who had accepted places at the University of Bath but who had not yet arrived, but this was considered too difficult to be attempted within the limited resources available.

The sampling frame used was a list of all first-year full-time students at the University of Bath in the year 1983/84, stratified by

degree course and arranged alphabetically within each course; a systematic sample of 75 was drawn from this frame, which contained 1057 names overall, by using a random number to pick the first name and by taking every fourteenth name thereafter.

(ii) University of Bath academic staff

The population consisted of all full-time academic staff employed by the University of Bath in the spring term of 1984. The sampling frame was basically alphabetical but was stratified by School (i.e. Engineering, Modern Languages, etc.) and by rank within Schools; it contained 384 names. A systematic sample of 75 was drawn from this frame, as described above.

(iii) Employers recruiting from the University of Bath

The population consisted of the individuals responsible for liaising with the University of Bath on behalf of each of the companies which attempted to recruit graduates from the University in 1984; there were 150 such companies. The list was arranged alphabetically but was not stratified in any way.

It is important to note that in the vast majority of cases the individuals involved were members of the personnel department of their companies; they had chosen to recruit from Bath voluntarily, and there was thus some reason to expect that their views would be in tune with the ethos of the University. If the questionnaire had been adminstered to different individuals within the same companies - for example, to those working in the research and development departments - a different picture might have emerged. It would also have been interesting to test

the views of employers who deliberately avoid the University of Bath, or prefer not to recruit graduates at all (34), but again such steps were not considered practical as part of the present exercise. A systematic sample of 75 was drawn from the Bath employers' sampling frame, i.e. 1 in 2.

(iv) Comparator University students

The sampling frame for students at the Comparator University was an alphabetical list of full-time first-year undergraduates in 1983/84, stratified by faculty; a systematic sample of 75 was taken.

(v) Comparator University academic staff

The sampling frame for Comparator University academics was a list of the full-time staff employed by the University in the spring term of 1984; it was stratified by rank and by faculty and was arranged alphabetically within those strata. A systematic sample of 75 was obtained in the usual way.

(vi) Employers recruiting from the Comparator University

In the event, only 64 companies sent recruiting officers to the Comparator University in 1984; all 64 were therefore asked to complete the questionnaire, which eliminated sampling error entirely. The individuals concerned were those nominated to liaise with the University, as was the case with the University of Bath employers group. Only 10 of the Comparator University employers were also included in the Bath list: these individuals were not sent two questionnaires, but their responses were data-processed twice, as part of the two appropriate sample groups.

(vii) Conservative Members of Parliament

The sampling frame for Conservative MPs was derived from Vacher's Parliamentary Companion, November 1983. (35) It was an alphabetical list of 396 names from which a systematic sample of 75 was drawn. The list was amended to take into account two recent deaths.

(viii) Labour Members of Parliament

Vacher's Parliamentary Companion for November 1983 was again the source for the sampling frame for Labour MPs, which was an alphabetical list of 209 names; a systematic sample of 75 was drawn from this frame.

Administration of the questionnaire

Previous research has established a code of good practice for the actual administration of questionnaires, and detailed guidelines are set out in the literature. (36) In most instances the researcher is approaching individuals who are under no obligation to assist him, and therefore everything must be designed to persuade the respondent to co-operate.

After due consideration it was decided to send the questionnaire with a covering letter and a pre-paid return envelope. A copy of the covering letter is provided as Appendix Seven. The wording of the letter was the same for all groups, the final version being prepared after the pilot test of the questionnaire. The covering letter was printed to a high standard of reproduction on the appropriate University of Bath letterhead, and each individual was addressed as 'Dear Mr. Smith' by hand; the letters were also signed individually. Blue ink was used to distinguish the handwriting from the printing, and an attempt was thus made to

overcome the respondent's natural feeling that this was just another circular which he could safely ignore. Both the letter and the questionnaire were marked with a code number to identify the group, the individual, and whether it was part of the first or second mailing. This might have been interpreted as contradicting the statement in the letter that the results would be confidential - meaning that no individual's views would be disclosed - but in the event only two respondents obliterated the code numbers so that they could not be identified.

At the end of the questionnaire the respondent was asked to return the completed document in the envelope provided. In the case of respondents within the University of Bath this was done through the internal mail. Other respondents were provided with a pre-paid A5-size addressed envelope which was specially printed under license from the Post Office.

Details of the numbers of replies to the first mailing are given in the next chapter. In due course a second letter was sent to all those who had not replied. A copy of the reminder letter is provided as Appendix Eight; the wording was the same in all cases. Once again the letters were individually addressed and signed, the letter and the questionnaire were coded, and a pre-paid envelope was provided.

The timing of the second mailing varied according to the group. For non-respondents in the University of Bath, the gap between the first letter and the second was two weeks. For others, particularly MPs, a longer period of up to four weeks was allowed. All mailings were carried out between March and June 1984.

The results which were obtained from the circulation of the questionnaire are described in the next chapter.

NOTES ON CHAPTER ELEVEN

1. See Chapter Three.
2. See Cohen and March (1974), for example.
3. See Chapter Eight.
4. See Chapter Eight.
5. Ashworth (1982), page 75.
6. See Chapter Three for a discussion of stakeholder analysis.
7. Thomas (1981), page 3.
8. Ibid.
9. Moore, Nuttall and Willmott (1973), page 68.
10. Oppenheim (1979), page 107.
11. See Chapters Six and Seven for details.
12. Hoinville, Jowell and associates (1982), page 182.
13. Ibid.
14. Cohen and Mannion (1980), page 21.
15. See, for example, Johnson (1977), page 174.
16. The principal authorities consulted in making this decision were Hoinville, Jowell and associates (1982), Moser and Kalton (1979), Oppenheim (1979), and Thomas (1981).
17. Likert's technique was first described in 1932. See Likert (1932).
18. Moser and Kalton (1979), page 362.
19. It is worth noting that a Likert scale is not an interval scale; consequently no conclusions can be drawn, strictly speaking, about the meaning of the distances between groups on the scale. See Moser and Kalton (1979), page 364. This is another reason why the result of this and similar research projects should be interpreted with caution.

20. See, for example, Hoinville, Jowell and associates (1982), page 37; Oppenheim (1979), page 134; or Verma and Beard (1981), page 89.
21. See, for example, Moser and Kalton (1979), page 42.
22. See, for example, Hoinville, Jowell and associates (1982), page 130.
23. See Hoinville, Jowell and associates (1982), page 127, and Moser and Kalton (1979), page 264.
24. Hoinville, Jowell and associates (1982), page 130; Moore, Nuttall and Willmott (1973), page 14; Oppenheim (1979), page 25.
25. Ashworth (1982), page 75.
26. The information in this paragraph is derived from a number of publications of the University of Bath, notably the Annual Report and the undergraduate prospectus. See University of Bath (1983) and University of Bath (1984).
27. Ashworth (1982), page 715.
28. Dolton and Makepeace (1982).
29. The discussion of sampling theory in this section is drawn from the appropriate chapters of Hoinville, Jowell and associates (1982) and of Moser and Kalton (1979).
30. Johnson (1977), page 181.
31. Ibid., page 182.
32. The discussion of this point in Cohen and Mannion (1980) is particularly helpful.
33. See Brennan and Percy (1975), page 2.
34. According to Kogan and Boys (1983), such employers do exist.
35. See Vacher (1983).
36. See the relevant chapters of Hoinville, Jowell and associates (1982) and of Moser and Kalton (1979).

CHAPTER TWELVE: RESULTS OBTAINED FROM THE SURVEY

This chapter gives details of the results which were obtained from the administration of the questionnaire which was described in the previous chapter. The aims of the survey were (i) to establish whether the questionnaire which had been designed was a satisfactory instrument for measuring attitudes towards important university goals in a British context, and (ii) to establish whether there were important differences between the attitudes of the specified stakeholder groups in respect of the specified issues.

Response rates

One of the problems associated with postal surveys is that some members of the sample will not return the questionnaire. Even in surveys of groups who are known to be interested in the subject of the questionnaire, returns of over 80 per cent are rare; (1) response levels of between 40 and 80 per cent are more usual. (2) Yet unless a response rate of over 80 per cent can be achieved, there is a risk that non-response bias will seriously affect the results. (3) The individuals who do not return a particular questionnaire will not necessarily differ in their opinions from those who do, but in practice this has often been demonstrated to be the case. (4)

There are a number of methods of dealing with the problem of non-response. The first is to encourage as many replies as possible by designing the questionnaire so that it is attractive to the respondent, by sending reminder letters, and by enclosing pre-paid envelopes, etc. (5)

Once the final return has been obtained, there are two further methods of estimating whether a 100 per cent response rate would have

provided results which were different from the results obtained from the actual number of respondents. The first method is to compare respondents with non-respondents to see if they differ in any obvious way: for example by sex, geographical location or social class. (6) It may be found that non-respondents share a characteristic which is relevant to the survey. To take an extreme example: if opinions were sought on the amount of pocket money which children ought to have, and all respondents were found to be childless, while all non-respondents were found to have children, the researcher might well doubt whether his results were representative of the population as a whole. If no differences are found between respondents and non-respondents, the researcher may be justified in assuming that the reasons for non-response are not related to the subject of the survey; in that case non-response may not have biased the findings.

The second method for checking non-response bias is to compare early returns with late returns. It has been found that respondents who send in questionnaires late are roughly similar to non-respondents; (7) if there are no major differences between late and early respondents, the researcher may again be justified in assuming that a 100 per cent response rate would not have given him figures which were significantly different from his actual figures. If the late returns constitute a sufficiently large group, a statistical analysis can be carried out to establish whether the group's mean view differs significantly from that of the group which returned their questionnaires early. If the late-returns group is small, the comparison may have to be more subjective.

All three methods of dealing with the problem of non-response were used in relation to the present questionnaire. In the first place, a great effort was made to obtain a high overall response rate. Every care was taken to design the questionnaire in a form which would present the

respondent with few difficulties: these steps were described in detail in the previous chapter. Secondly, a comparison was made, where possible, between the characteristics of respondents and non-respondents. Thirdly, responses to the first and second mailings were data-processed separately, which made it possible to compare the views of early and late respondents.

The numbers of questionnaires returned in each of the two mailings, and the percentage of the samples which the total returns represent (to the nearest whole number) are set out below:

	No. returned 1st mailing	No. returned 2nd mailing	Total returns as a percentage of sample
Bath students	59	6	89%
Bath academics	56	7	84%
Bath employers	62	10	90%
Comparator students	55	8*	84%
Comparator academics	46	8	76%
Comparator employers	47	10	89%
Conservative MPs	23	7	40%
Labour MPs	30	6	48%

*Two other questionnaires arrived too late to be data-processed.

It will be noted that in general the overall response rate was satisfactory: the only disappointing groups, statistically speaking, were the MPs. However, given the problems of persuading MPs to fill in questionnaires of any kind, the above figures must be counted a success. The Labour MP for Blackburn, writing in The Times Higher Education Supplement, stated that every day each MP receives unsolicited mail by the bundle, 'and every day tons of this mail are dumped, unread.' (8) In addition to the 30 Conservatives and the 36 Labour MPs who actually

completed questionnaires, 12 Conservatives and 21 Labour MPs wrote to the researcher, specifically to say that they were not willing to respond as requested. A few Conservatives argued that collective ministerial responsibility made it impossible for them to fill in such a questionnaire; several MPs declared that they made it a rule never to return questionnaires of any kind; and some stated that although they recognised the importance of universities and were interested in them, they did not believe that the researcher's method could do justice to their views. Nevertheless, the questionnaire was completed and returned by a number of leading politicians on both sides of the House, including a former Secretary of State for Education and Science.

The total returns set out above are expressed as a percentage of an adjusted sample figure, not as a percentage of the target sample of 75. In a number of cases the sample varied slightly from the target, for the following reasons. Two Bath students had left the University, reducing the sample to 73; two of the respondents in the Bath employers' group persuaded colleagues in their personnel departments to fill in the questionnaire in addition to themselves, thus increasing the sample size to 80; four members of academic staff at the Comparator University were abroad, which reduced the sample to 71; and only 64 employers attempted to recruit from the Comparator University in 1984.

The table shows that the number of questionnaires returned in the second mailing was small: in no case did it exceed 10. The largest proportion of late returns came from Labour MPs: 23 per cent of the total. These low numbers made it difficult to compare the characteristics of late respondents with those of early respondents, but where possible a comparison was made. This examination revealed no significant results. For example, of the 8 non-respondents in the Bath students' group, 3 came from arts disciplines, reflecting their proportion

in the total student population almost exactly; the same was true of Bath academics. In some groups, such as Labour MPs, it was difficult to discern any basis on which a comparison could be made, given the limited information available. Overall, it was not possible to detect any factor which non-respondents in any of the groups had in common.

The small numbers of late returns also made it difficult to compare statistically the views of respondents to the second mailing with the views of those who responded to the first request. However, the early and late returns in each group were data-processed separately, and the means of the views expressed in the two batches, on each of the six issues, were examined to check whether any dramatic differences occurred. Once again, no important differences were found: in all instances the means of the late respondents' views fell within the standard deviation of the means of the early respondents. (Details of the calculations used to determine the means referred to will be given in a subsequent section of this chapter.) Because of the small numbers involved in the second batches it was not considered appropriate to use a statistical test to assess differences between early and late respondents.

The main conclusions to be drawn from the response rates are as follows:

(i) The overall response rate was pleasingly high for a survey of this kind, and was far in excess of the anticipated 50 per cent.

(ii) With the exception of the two groups of politicians, the response rates (in themselves) give no reason to doubt that the results are representative of the groups sampled. The two tests which were applied to try to identify the nature of any non-response bias did not provide any hint that the findings from a 100 per cent response would have differed markedly from the figures yielded by the actual returns.

(iii) The results obtained from the questionnaires completed by Conservative and Labour MPs should be interpreted with caution; it is certain that some MPs in the sample had strong views on universities but for a variety of reasons they were unwilling to fill in the questionnaire. There was no discernible factor which distinguished non-responding MPs from respondents, and a comparison of late returns with early returns did not suggest that the views of non-respondents would have been markedly different. The organisers of many surveys have felt justified in assuming that returns of 40 per cent or more were in fact yielding representative views (see below), but an element of doubt remains in the case of MPs in this survey.

Earlier chapters reported that almost all the previous surveys of opinions on university goals have been carried out in America, and comparisons with American response rates are of only limited value. However, it is worth noting that Gross and Grambsch's pioneering survey of academic staff received only a 40 per cent response rate, which was achieved after an enormous effort; they regarded this response as 'gratifyingly high'. (9) In the huge survey of higher education institutions in California, high response rates among academic staff were rare: only 6 out of 42 institutions achieved over 85 per cent. (10)

In the British context, Halsey and Trow's famous book The British academics was based on a 51 per cent response to their principal survey. (11) Laycock's survey of North East London Polytechnic staff, which was referred to in Chapter Seven, had a 42.5 per cent response rate, (12) and a 1979 survey by Bacon and others obtained replies from 56 per cent of employers and 31 per cent of final-year polytechnic students. (13)

In short, previous research, both here and in the USA, has

demonstrated that unsolicited questionnaires on university goals are not popular. Uhl found that the only way to obtain a 75 per cent response from students was to pay them a $10 fee. (14) Such a procedure was not considered practical in the present instance, and fortunately a satisfactory level of response was obtained without it.

Editing and data processing

As the completed questionnaires were returned they were sorted into batches, and into the right order within batches, according to the individual reference numbers which had been allocated to them. Two respondents had obliterated the reference numbers and those questionnaires had to be discarded as there was no way of telling which group they belonged to.

Once the flow of returns had virtually ceased, the questionnaires were edited. This involved checking each one to establish that the respondent's replies were unambiguous. In the event, very little editing was required, but in some cases respondents had had second thoughts; in those instances it was necessary to ensure that the operator responsible for data processing was in no doubt as to which tick should be regarded as the answer to record.

In no case was there any evidence to suggest that the questionnaire had been filled in by anyone other than the respondent to whom it had been addressed. Nor was there any reason to suppose that respondents had treated the questionnaire frivolously, providing responses which could not be regarded as serious and considered. In all instances, therefore, the researcher assumed that the returned questionnaires had been completed by the appropriate individuals and that their responses were truthful.

As is usually the case, some respondents had written comments on

the questionnaires. The number of such respondents in each group is shown below:

Bath students:	1
Bath academics:	10
Bath employers:	6
Comparator students:	1
Comparator academics:	10
Comparator employers:	2
Conservative MPs:	4
Labour MPs:	10

It is not surprising that some academics felt the need to embellish their responses: given the profession's well known propensity for splitting hairs it is only surprising that the number was not larger. Politicians are also well known for their anxiety about being misquoted; it was therefore inevitable that some MPs who did participate in the survey would need to add riders. The largest proportion of comments in any of the groups was among Labour MPs (about 28 per cent of the respondents in the group).

The figures stated above, for the frequency of comments include even the smallest note or amendment of a question, however trivial. Most of the comments consisted of such phrases as 'Depends what you mean by...' or 'Like every other citizen'. Only two respondents were abusive (one an MP, the other a Comparator academic).

Once the editing was complete, the batches of questionnaires were passed to the University of Bath Computer Unit for data processing. The operator punched in the data direct from the questionnaires. She was instructed to punch in a number from 1 to 5, reading from left to right: thus a tick in the 'strongly disagree' box scored 1, while a tick in the 'strongly agree' box scored 5. If the respondent had left all boxes blank against a particular statement, the operator entered a 9. The question

with the highest number of blanks was number 21, with 6 non-respondents. In all, there were only 56 questions left unanswered out of the whole 440 completed questionnaires.

Experience has shown that even skilled computer operators make errors of about 2 per cent. (15) It is therefore necessary to carry out checks on their work. In this instance a check was made of the computer records to eliminate all figures over 5, other than 9; in fact only one such score was revealed by the printout.

Overall, the editing process confirmed the impression given by the response rate, namely that respondents had found that the questionnaire could be completed easily and quickly. In most groups, only a small minority felt the need to add any comment, and only a handful of these comments were critical of the questionnaire's design or content.

Statistical analyses

In the section on the choice of hypothesis, in the previous chapter, it was noted that educational researchers are frequently encouraged to adopt a 'scientific' approach. For instance, one textbook recommends that the researcher should define a population, select a random sample from it, specify a hypothesis, and carry out a test to support or reject the hypothesis. (16) The test which is applied in such procedures is frequently a statistical analysis of one kind or another: this leads to a declaration that the difference between two sets of data is or is not 'statistically significant', which in turn leads to the support or rejection of the hypothesis. Examples of PhD theses in the area of university goals which follow this procedure are those of Dunford, Miller and Taylor. (17) The surveys undertaken by Nosow and Clark, and by Romney, also made use of statistical tests. (18)

The difference between two sets of data is said to be statistically significant if it can be shown that it is highly unlikely to have occurred by pure chance. Usually, if the odds against 'pure chance' are more than 20 to 1, i.e. a probability of less than 0.05, the result is accepted as statistically significant, but there is no hard and fast rule about this cut-off point. (19)

Researchers often place great emphasis on finding statistically significant differences between the views of various groups as measured by attitude questionnaires. (20) What can easily be overlooked in such calculations is that there is little value in the computer performing calculations to four significant figures if the original data are questionable. Furthermore, most techniques for establishing whether there are statistically significant differences between groups are only valid if certain technical assumptions are true of the data in question. For example, Peterson and Uhl point out that the techniques which they describe all assume that responses are normally distributed within the population, and that when two or more groups are compared, their population variances are equal. (21) It is also essential to compare like with like: samples should preferably be of the same size and be derived from sampling frames on the same basis; and if large samples are used, it is more likely that significant differences will be found between two means than if small samples are selected. (22) All these difficulties are well documented, but they are seldom referred to in research reports in the field of university goals.

Another problem relates to the degree of difference which the researcher chooses to regard as significant. Support for a hypothesis can only be stated in terms of probability rather than certainty, and the 0.05 level of probability allows more results to be declared significant than does the 0.01 level. It may therefore be thought safer to use the more

severe test (0.01), but there is a further complication. The 95 per cent test may lead the researcher to reject the null hypothesis when it is true, and using the 99 per cent test may lead to support of the null hypothesis when it is in fact not true. (23) Above all, the researcher must remember that a statistically significant difference may not be important in the real world. Similarly a non-significant difference is not the same thing as no difference. (24)

Unfortunately, examples of the abuse of statistical analyses are not difficult to find. Huff's book lists some amusing examples. (25) A much more serious case is described by the Radical Statistics Education Group. (26) This concerns a large-scale comparison between traditional and 'progressive' teaching methods in primary schools. The original analysis supported the hypothesis that traditional methods were best. A second analysis, of exactly the same data, was carried out some years later, and this time it appeared that there was no significant difference between the progress of pupils taught in different styles. Finally, a third examination of the data was carried out, by an independent group of statisticians, and they decided that in this case statistical comparisons of any kind were inappropriate, because it was not possible to compare like with like.

In view of the pitfalls, it appears that the best advice to educational researchers is to use statistical analyses with extreme caution. Many statisticians now believe that significance tests are widely overused and also misused in some areas. In some cases it is possible to look at group means, or similar data, and to detect important differences 'by eye' rather than by the analysis of variance and similar tests. (27)

The calculations which were performed on the raw data obtained from the administration of the present questionnaire are described below. The overall aim was to establish (i) the extent to which each group had a common view on each issue, and (ii) the extent to which the groups'

views on each issue differed from each other. In all the calculations advantage was taken of the fact that the University of Bath's Multics computer system is programmed with the Statistical Package for the Social Sciences (SPSS). (28)

The first step was to convert certain of the scores. It will be recalled that in each set of four questions, two were processed so that a 'strongly agree' response would score 5, while the other two were phrased so that a 'strongly disagree' response should also score 5. To simplify the input of data, all responses were entered into the computer on the same basis, i.e. 1 to 5 for 'strongly disagree' to 'strongly agree'. The necessary conversion of the scores for the relevant questions was therefore carried out before any other operations.

Secondly, each individual respondent's scores were added together in six appropriate sets of four, and the six means of the scores were then calculated. Any set of four scores which included a 9 (the code for no response) was discarded. Thirdly, sample group means for each of the six issues were calculated. The earlier section on response rates recorded the fact that, initially, sample group means were calculated in two batches: those who responded to the first mailing, and those who responded to the second mailing, giving sixteen scores on each of the six issues. This information was needed in order to check for non-response bias, as described earlier.

Having obtained the individual and sample group means, the standard deviations of the means were calculated for the sixteen batches on each issue. The standard deviation is an important measure which gives an indication of the level of agreement within a group: it can be expressed graphically as a line on either side of a dot which represents the mean. To take two extreme examples: if there were 100 respondents, and their opinions were evenly distributed between 'strongly disagree' and 'strongly

agree', the mean would be 3 and the standard deviation would be 1.41; this would be shown in graphic terms by a line running from 1.59 to 4.41 on a scale from 1 to 5. Alternatively, if all 100 respondents ticked the 'agree' box, the mean would be 4 and the standard deviation would be 0. It is worth noting in this connection that the American experience with the IGI demonstrated that standard deviations on questions relating to what goals should be are normally higher than on a question about what an institution's goals actually are. (29) In other words, there will usually be less agreement within a group on 'should be' questions.

Since it was not possible to detect any significant differences between early and late respondents, the next step was to combine the data for the first and second mailings and to produce eight sample group means on each of the six issues, together with the standard deviations. (It should be remembered in this context that not only will the position of a mean vary with each sample, but the size of the standard deviation will also vary.)

Finally, the SPSS analysis of variance test was carried out to see if there were any statistically significant differences between the mean scores of the eight sample groups on each of the six issues. (See below for details.)

With data of this kind it is possible to carry out factor analysis, and the use of this technique seems to be increasing: for example, the large volume of data derived from the many applications of the Educational Testing Service's Institutional Goals Inventory has been subjected to factor analysis. The facility is readily available through SPSS and could have been employed in this case: however, even if the data to which the analysis is applied are of the highest quality, there are good statistical reasons for doubting the value of the exercise. (30) It was therefore decided that an analysis of underlying 'clusters' of attitudes could be

detected more effectively by a subjective assessment of the data than by using the computer.

Further calculations were carried out by the computer in order to give an indication of the shape of the data. For instance, the total number of responses scoring 1 to 5 were printed out for each question; also the numbers of respondents scoring from 4 to 20 on each set of four questions were printed out for each sample group on each of the issues.

Details of the results

This section provides a factual statement of the attitudes of the sample groups to the six issues, as revealed by the completed questionnaires. No attempt will be made here to assess the academic or political significance of any differences or similarities which were found in the groups' attitudes: that analysis will be provided in Part Four.

(i) Overview

Table 1 shows the mean scores, ranging from 1 to 5, of each of the sample groups on each of the six issues; the standard deviations are also shown.

In Figures 1 to 6 the same data are presented graphically. For each sample group and each issue the mean is represented by a dot at the appropriate point on the scale, and one standard deviation (plus or minus) is indicated by a line of appropriate length on either side of the dot. This is intended as an aid in identifying the level of agreement (or disagreement) within each sample group on each issue.

It should be remembered that strictly speaking the results represent only a 'snapshot' of attitudes at a particular time.

Table 1

SAMPLE GROUPS

MEANS AND STANDARD DEVIATIONS ON THE SIX ISSUES

SAMPLE GROUP	COURSES: LIBERAL/ VOCATIONAL		COURSES: BROAD-BASED/ SPECIALISED		RESEARCH: FOR/ AGAINST		RESEARCH: PURE/ APPLIED		LECTURER'S STYLE EXPOSITORY/ DIDACTIC		LECTURER'S ROLE PASSIVE/ ACTIVE	
	MEAN	S.D.	MEAN	S.D.	MEAN	S.D.	MEAN	S.D.	MEAN	S.D.	MEAN	S.D.
BATH STUDENTS	2.70	0.62	2.65	0.67	2.08	0.45	3.57	0.47	1.71	0.51	3.52	0.57
BATH ACADEMICS	2.50	0.65	2.77	0.72	1.65	0.54	3.35	0.62	1.88	0.51	3.71	0.78
BATH EMPLOYERS	2.66	0.59	2.68	0.58	2.01	0.62	3.72	0.54	1.72	0.48	3.18	0.85
COMPARATOR STUDENTS	2.37	0.71	2.81	0.60	2.11	0.49	3.37	0.52	1.79	0.54	3.62	0.70
COMPARATOR ACADEMICS	2.32	0.62	2.64	0.75	1.57	0.41	2.92	0.59	1.89	0.54	3.96	0.67
COMPARATOR EMPLOYERS	2.71	0.51	2.64	0.59	1.69	0.45	3.68	0.43	1.75	0.41	3.21	0.66
CONSERVATIVE MPs	2.91	0.57	3.04	0.59	2.20	0.39	3.80	0.53	1.66	0.49	2.64	0.81
LABOUR MPs	2.15	0.46	2.25	0.47	1.96	0.51	3.51	0.52	2.11	0.61	4.00	0.66

Figure 1

COURSES

LIBERAL/VOCATIONAL

Sample means plus and minus one standard deviation

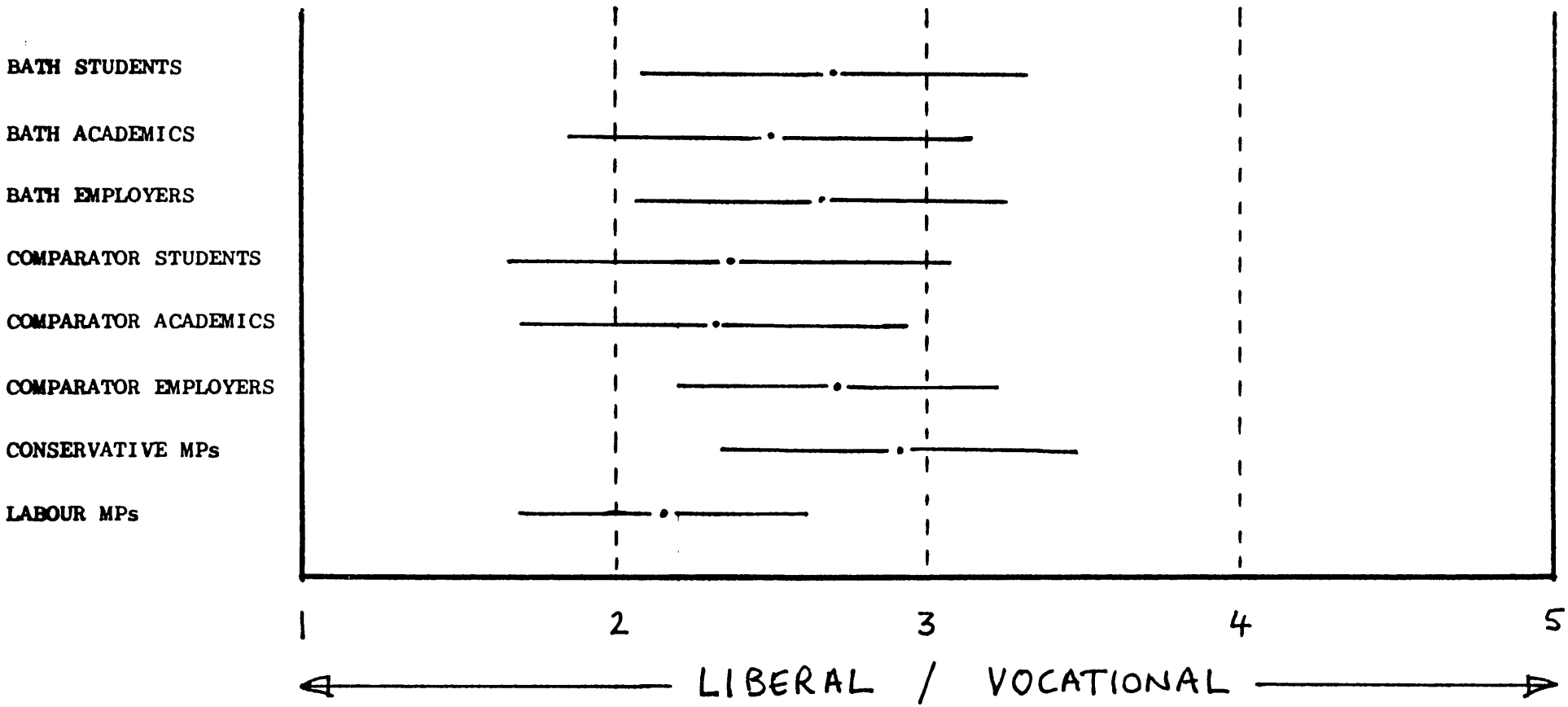


Figure 2

COURSES

BROAD-BASED/SPECIALISED

Sample means plus and minus one standard deviation

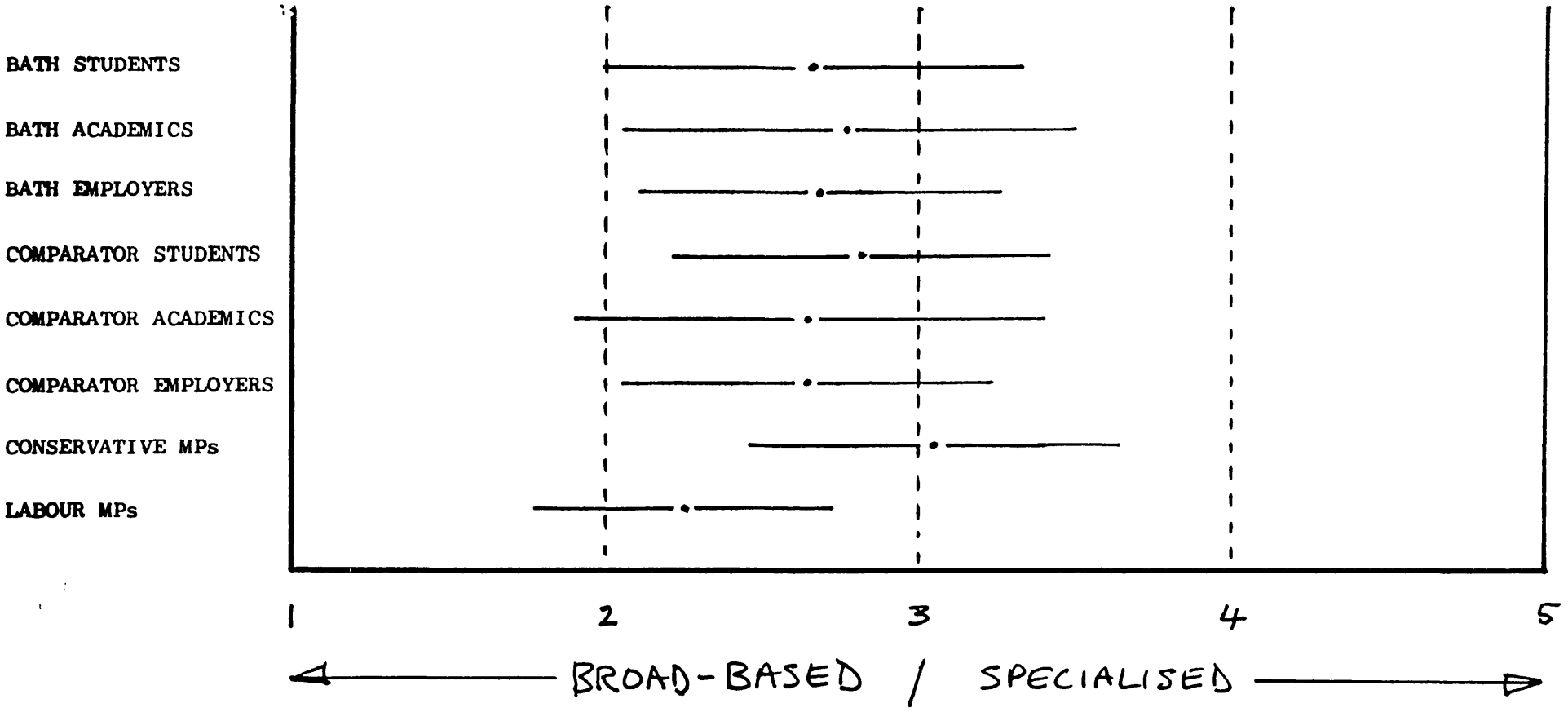


Figure 3

RESEARCH

FOR/AGAINST

Sample means plus and minus one standard deviation

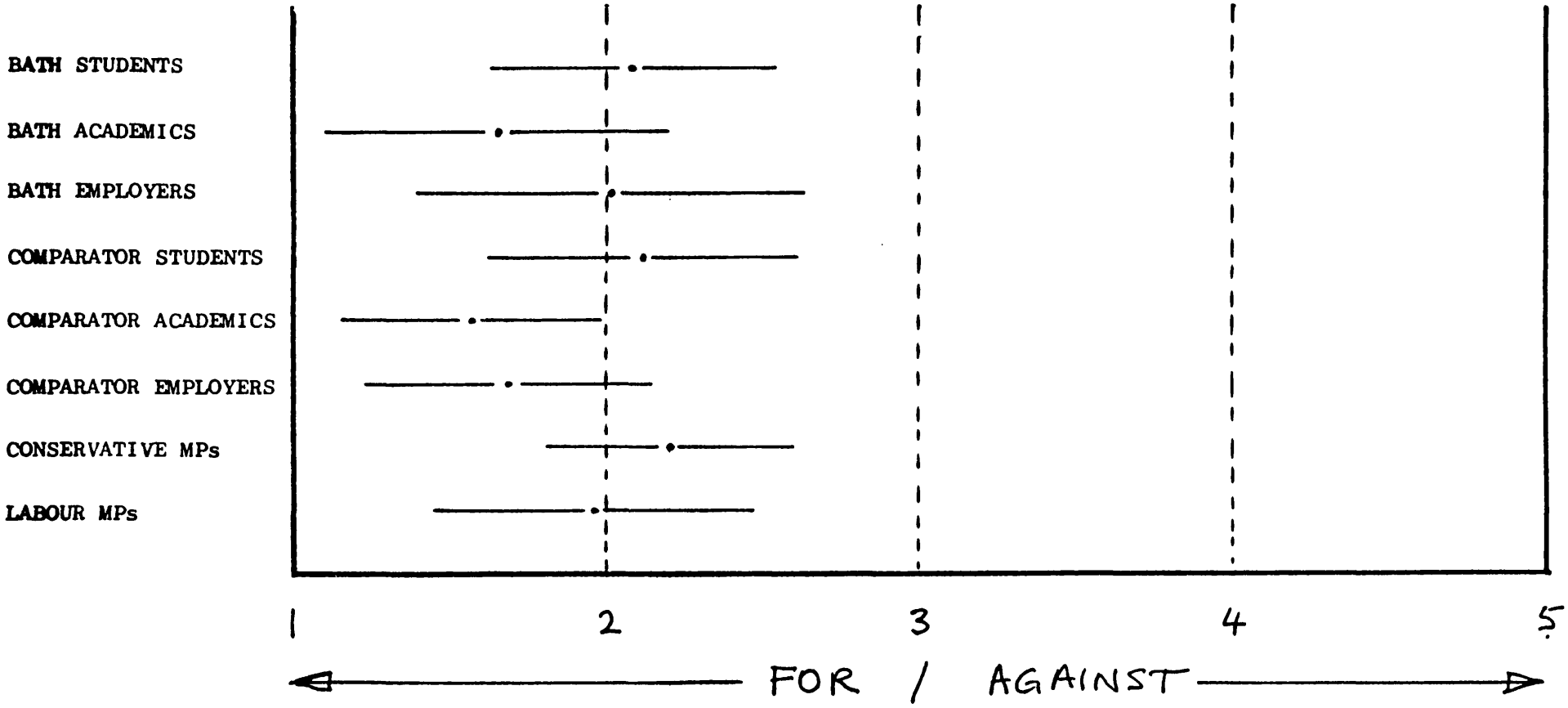


Figure 4

RESEARCH

PURE/APPLIED

Sample means plus and minus one standard deviation

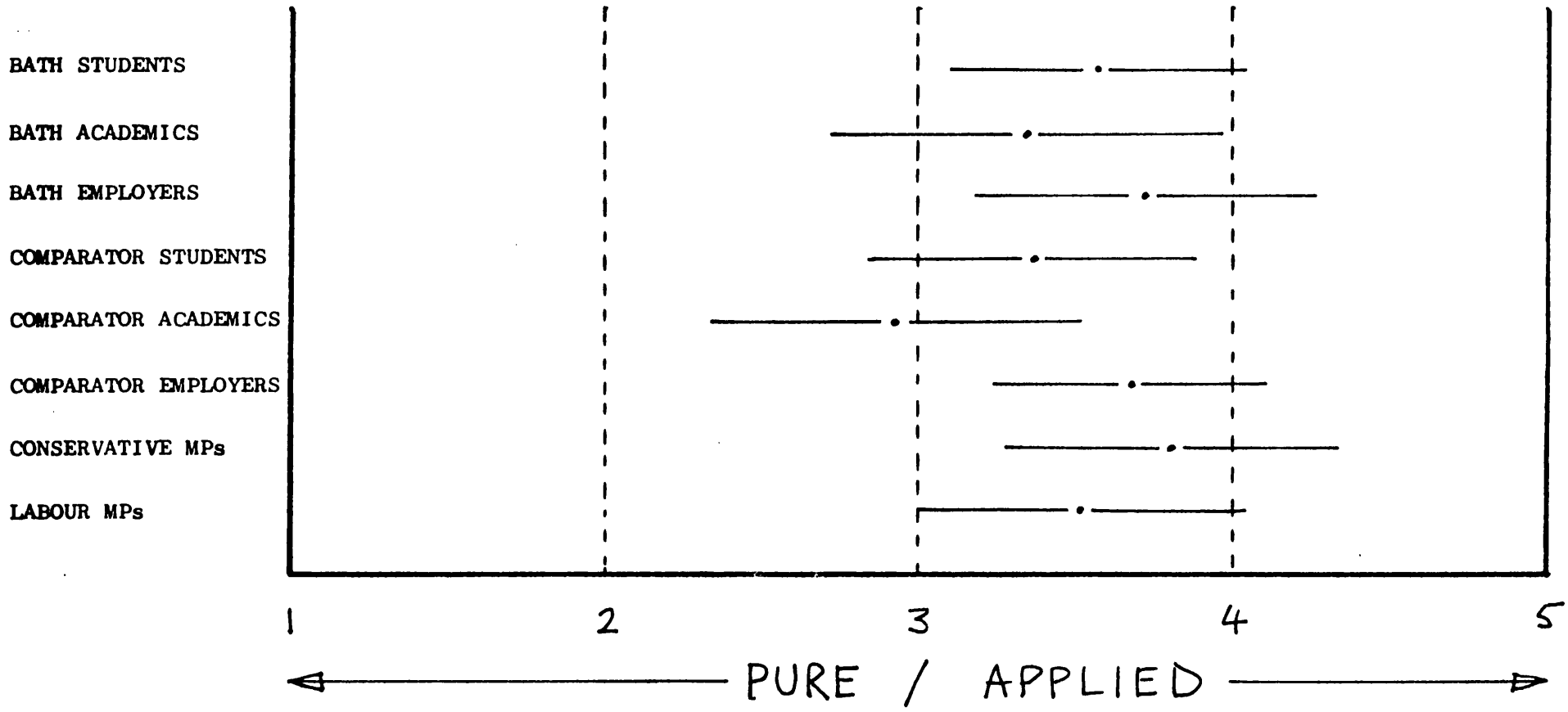


Figure 5

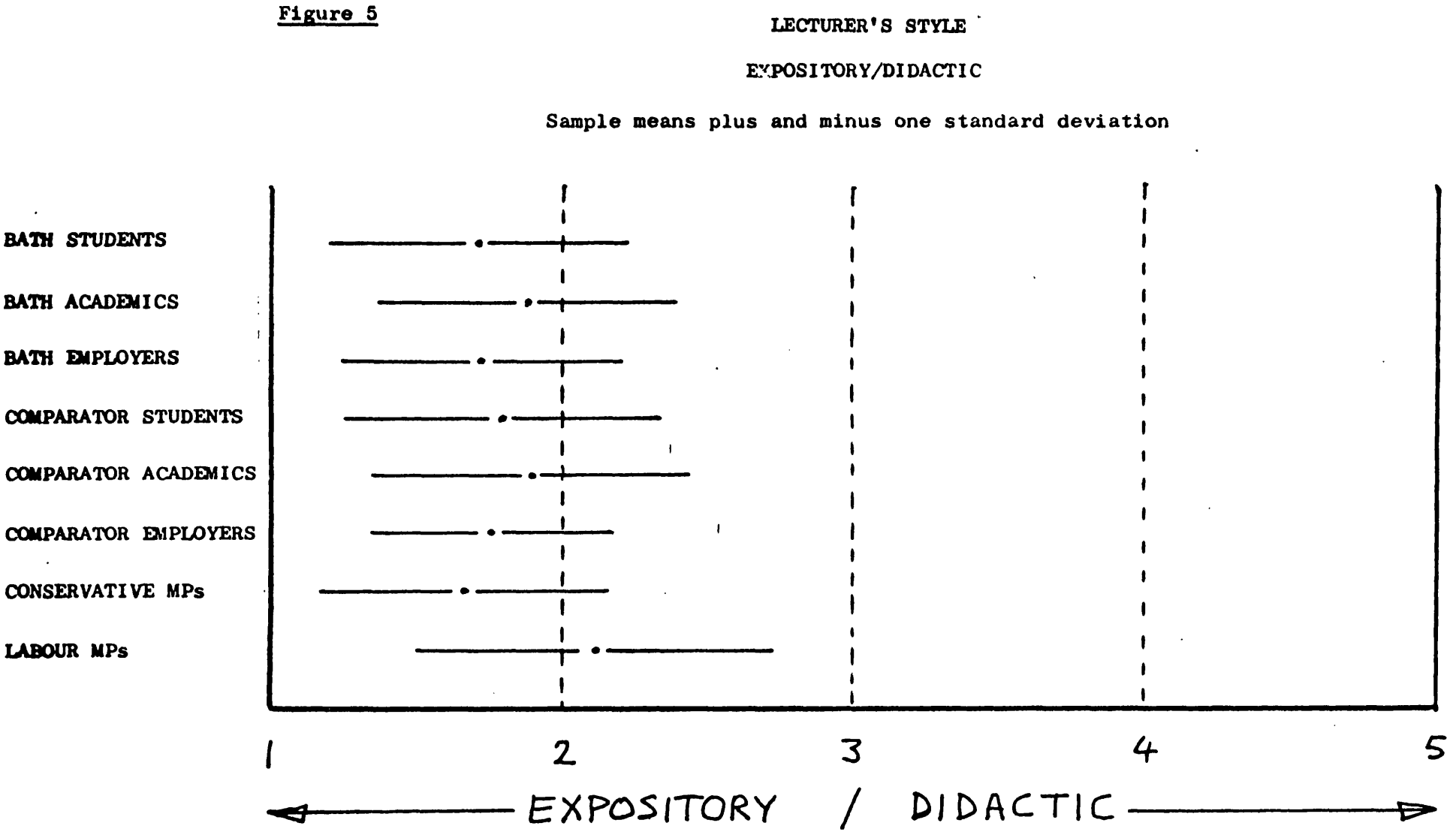
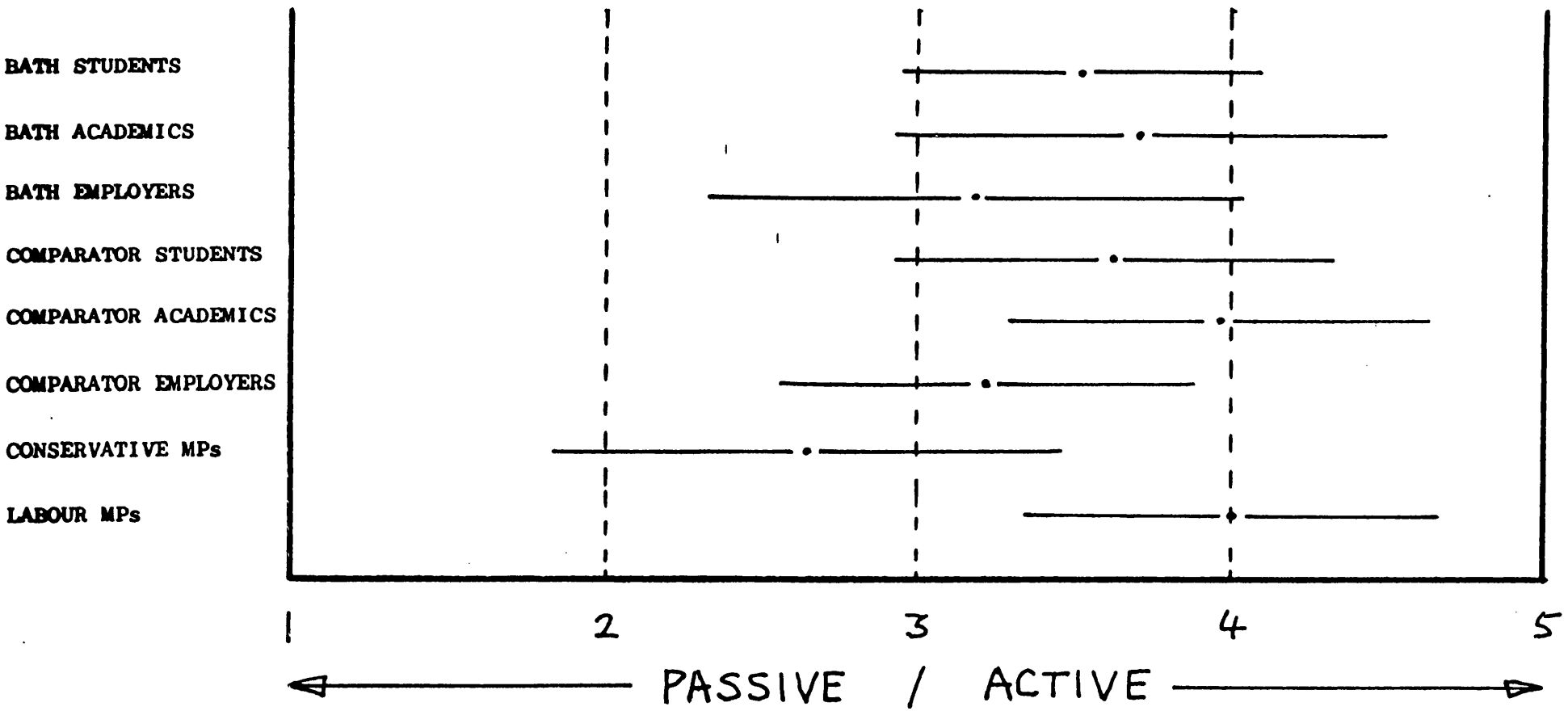

LECTURER'S STYLE
EXPOSITORY/DIDACTIC
Sample means plus and minus one standard deviation
BATH STUDENTS
BATH ACADEMICS
BATH EMPLOYERS
COMPARATOR STUDENTS
COMPARATOR ACADEMICS
COMPARATOR EMPLOYERS
CONSERVATIVE MPs
LABOUR MPs
1
2
3
4
5
EXPOSITORY / DIDACTIC

Figure 6

LECTURER'S ROLE

PASSIVE/ACTIVE

Sample means plus and minus one standard deviation



(ii) Courses: liberal or vocational?

Figure 1 indicates that all groups tended to favour liberal rather than vocational courses, with Labour MPs being the most liberal and Conservative MPs verging upon the vocational. Just over half of the respondents (52 per cent) disagreed, or strongly disagreed, with the statement that a university degree course should prepare a student for a specific career; similarly 59.9 per cent of all respondents agreed or strongly agreed that the main aim of university degree courses should be to produce well rounded human beings. Among Labour MPs (the most 'liberal' of all the groups), only 1 respondent (out of 36) had a mean score indicating that he favoured vocational courses.

(iii) Courses: broad-based or specialised?

An examination of Figure 2 reveals that most groups showed a slight preference for broad-based courses. Labour MPs were more in favour of broad-based courses than was any other group, while Conservative MPs' views fell just within the 'specialised' range. Only 2 Labour MPs (out of 36) favoured specialised courses.

(iv) Research: for or against?

Figure 3 shows that all eight sample groups were in favour of universities undertaking research, some of them heavily in favour: this was particularly true of the two sets of academic staff and the Comparator employers.

Detailed examination of the data reinforces the initial impression of strong support for research. Two thirds of all respondents (66.7 per cent)

had a mean score of 2 or less on this issue; 96.3 per cent had a mean score of less than 3. Over 92 per cent of all respondents agreed or strongly agreed with the statement that 'The discovery of new knowledge through research should be a vital aspect of a university's work'. Similarly, out of 440 respondents, 302 strongly disagreed with the statement that 'Universities should not be concerned with research'; a further 127 disagreed with the statement, while only 2 agreed and 1 strongly agreed with it.

While there is overwhelming support for research as an activity to be undertaken within universities, there is less agreement about the extent to which each individual lecturer needs to be involved. Nearly 92 per cent of all respondents agreed or strongly agreed that 'A university lecturer should try to discover new facts about his subject through research'. However, the statement that 'A university lecturer can be very good at his job without discovering any new facts about his subject at all' produced a very varied response; there were 176 respondents on the 'disagree' side, 199 on the 'agree' side, and 62 respondents with mixed feelings.

(v) Research: pure or applied?

Figure 4 reveals that 7 of the 8 sample groups considered that research should preferably be of the applied variety: only the academic staff at the Comparator University had a mean slightly below 3, i.e. on the 'pure' side of the line. Both sets of students were more 'applied' than their teachers.

In analysing the responses to each individual item, it was noticeable that 84 per cent of all respondents disagreed or strongly disagreed with the statement that 'Scientists in universities should not worry about the

practical problems of industry.'

Among Conservative MPs, the most 'applied' group of all, only 1 respondent had a mean score of less than 3. In the Comparator academic group, which had a group mean of 2.92, there were no extreme views in either direction: the lowest individual mean was 1.75, the highest 4.

(vi) Lecturers: expository or didactic style?

The statements about the lecturer's relationship with his students produced the strongest views of all: the results are illustrated in Figure 5, and it can be seen that every sample group except one (Labour MPs) had a mean score of less than 2. Only 6 individual respondents, out of a total of 440, had mean scores higher than 3. These results indicate that all the sample groups were strongly in favour of an 'expository' style for academic staff: that is to say, they preferred lecturers to explain both sides of controversial issues without attempting to persuade students to support one side rather than the other.

Analysis of the responses to each statement reveals that 68.3 per cent of all respondents strongly disagreed with the statement that 'A lecturer who has strong views on religion or politics should try to convert students to the cause he believes in'; another 25.3 per cent disagreed with it, making 93.6 per cent of respondents with that opinion in all. Similarly, 92 per cent of the respondents agreed or strongly agreed that 'A lecturer should allow students to form their own conclusions'.

Among Bath academic staff, no individual had a mean score of more than 3; in the Comparator academic sample, only 2 respondents scored above 3, with 3.25 and 3.5 respectively. The same pattern was repeated in the two student groups. Among Conservative MPs, no individual had a mean score higher than 2.5, and 6 respondents (i.e. 20 per cent) had the

lowest possible mean score of 1.

(vii) Lecturers: passive or active role?

Figure 6 readily illustrates the fact that all groups except Conservative MPs preferred an active to a passive role for academic staff in relation to society: that is to say, in broad terms, they preferred lecturers to be prepared to become involved in public controversy. However, Figure 6 also shows quite clearly that there was greater disagreement on this issue, both within the sample groups and between the groups, than on any other issue. The gap between Conservative MPs and Labour MPs, with mean scores of 2.64 and 4.00 respectively, is the largest found on any of the issues, and the standard deviation of 0.85 in the Bath employers' group represents the widest spread of opinion. Overall, the responses covered the full range of possible scores in a fairly flat curve; 4 individuals had a mean of 1, 7 had a mean of 5. All the sample group means except one fell on the 'active' side of the line, but only one statement provoked a particularly strong response. This was question 4: over 78 per cent of respondents disagreed or strongly disagreed with the statement that 'Lecturers should refrain from taking sides outside the university on issues of public importance'.

In the Labour MPs group, 24 out of 36 respondents had individual mean scores of 4 or higher, 7 of them scoring 4.75. The views of Conservative MPs were more evenly spread over a wider range, but no individual Conservative had a score of more than 3.75. Bath employers covered virtually the entire range of possible scores in a very flat distribution. Among the academics, 33.3 per cent of Bath staff had mean scores of 4 or higher, as did 41.5 per cent of Comparator staff. In the student groups, only 9 Bath students (out of 65) and 8 Comparator

students (out of 63) had mean scores below 3.

(viii) Statistically significant differences between the groups; outcome of the test of the null hypothesis

The SPSS analysis of variance test showed that on each issue it was highly unlikely that the differences between the sample groups had arisen by chance. (31) The F values and the level of significance indicated by them are set out in Table 2; the table reveals that there are statistically significant differences between at least some of the sample groups, on every issue, at levels of probability well below 0.01; the null hypothesis is therefore rejected.

(ix) Summary of the findings

Using the findings stated above, it is possible to draw up a summary of the preferences expressed by the sample groups. All eight groups were in favour of liberal education, and all except Conservative MPs favoured broad-based courses. There was strong support from all groups for research in universities, with a preference for the applied variety (only Comparator academics supporting pure research). All eight groups were firmly of the opinion that lecturers should adopt an expository style in relation to their students, and all groups except Conservative MPs preferred an active to a passive role for lecturers in relation to society.

(x) Clusters of attitudes

Previous research into attitudes towards university goals has sometimes revealed a tendency for opinions on one set of goals to be

Table 2

ANALYSIS OF VARIANCE

F VALUES AND LEVELS OF SIGNIFICANCE

ISSUE	F VALUE	LEVEL OF SIGNIFICANCE
COURSES: LIBERAL/VOCATIONAL	7.059	0.0000 (S)
COURSES: BROAD-BASED/SPECIALISED	4.247	0.0002 (S)
RESEARCH: FOR/AGAINST	11.812	0.0000 (S)
RESEARCH: PURE/APPLIED	14.169	0.0000 (S)
LECTURER'S STYLE: EXPOSITORY/DIDACTIC	3.028	0.0041 (S)
LECTURER'S ROLE: PASSIVE/ACTIVE	15.759	0.0000 (S)

(S) = Statistically significant at the 0.01 level.

correlated with opinions on another set. For example, Peterson and Uhl report what they describe as an 'ivory tower' link: groups which rated pure research highly in their survey also tended to give a low estimate of importance to vocational education. (32) An analysis of any such tendencies, as revealed in the present data, was made by plotting the means of the sample groups on two axes. One graph was drawn for opinions on courses, one for research, and one for the lecturer's role: these are reproduced as Figures 7, 8 and 9.

It should be noted that the graphs show only the means of the opinions expressed by the sample groups, and this gives a misleading impression of precision. A set of circles, each with the mean point as its centre and the standard deviation as its radius, would be a more accurate representation of the spread of opinion. Such an arrangement would, however, be confusing to the eye and would make it harder to fulfil the object of the exercise, which is to detect clusters of opinions.

In each graph it is clear that clusters do tend to form. On courses, several low scores on the liberal/vocational axis are associated with low scores on the broad-based/specialised axis, thus tending to confirm the historical association between these two aspects of education. However, the two groups of politicians are well separated on both dimensions of this graph, leaving the other sample groups to share the ground between them.

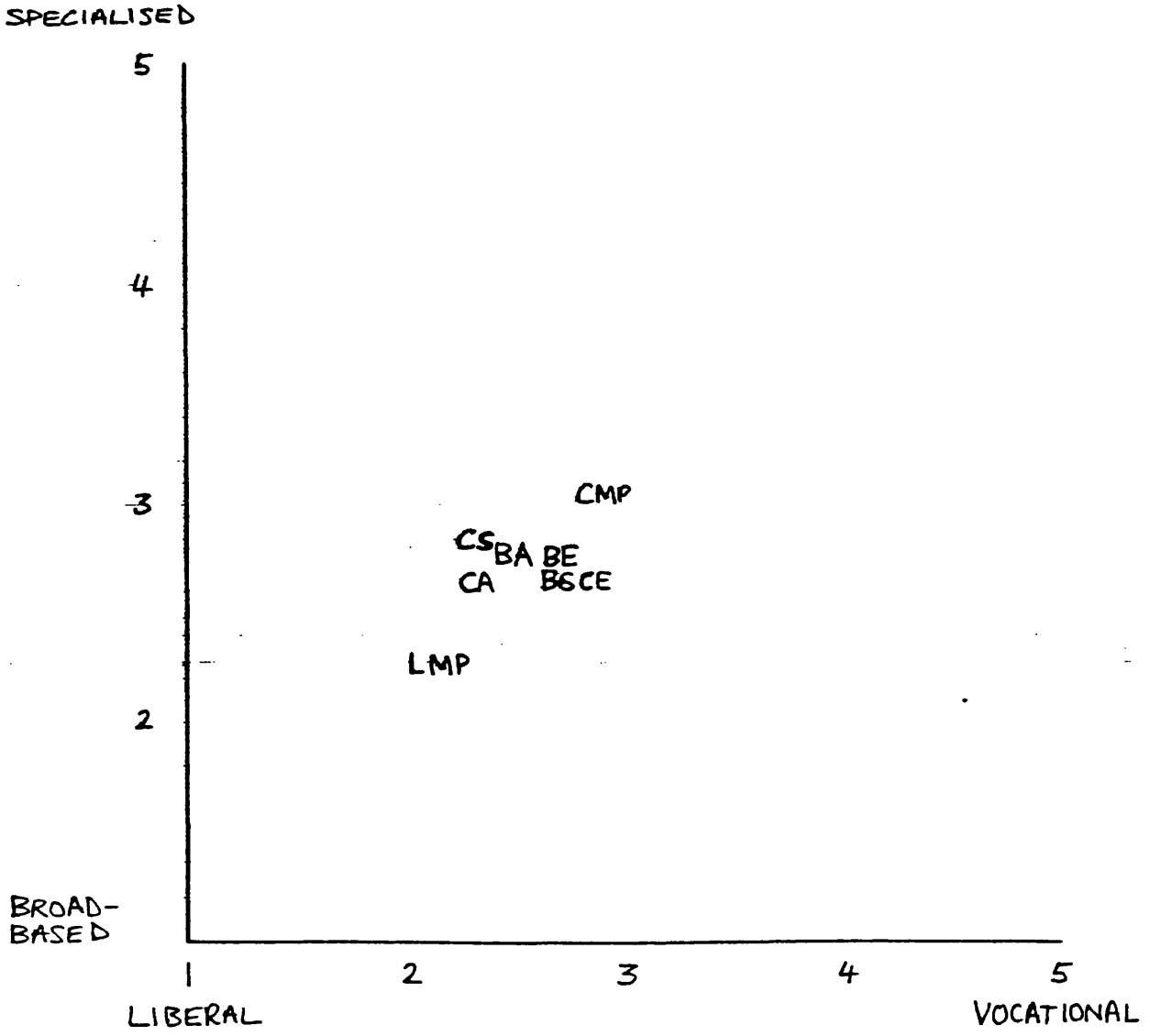
Another cluster is apparent on the research graph. All sample groups are strongly in favour of research and most are also grouped at the applied end of the continuum. The comparator academics are the exception here, being the most strongly in favour of research but just preferring the pure variety. As far as this set of results is concerned, Peterson and Uhl's 'ivory tower' pattern is therefore not repeated.

The clustering on the lecturer's role graph is less pronounced, but

Figure 7

RELATIVE POSITIONS OF

SAMPLE GROUP MEANS ON COURSES



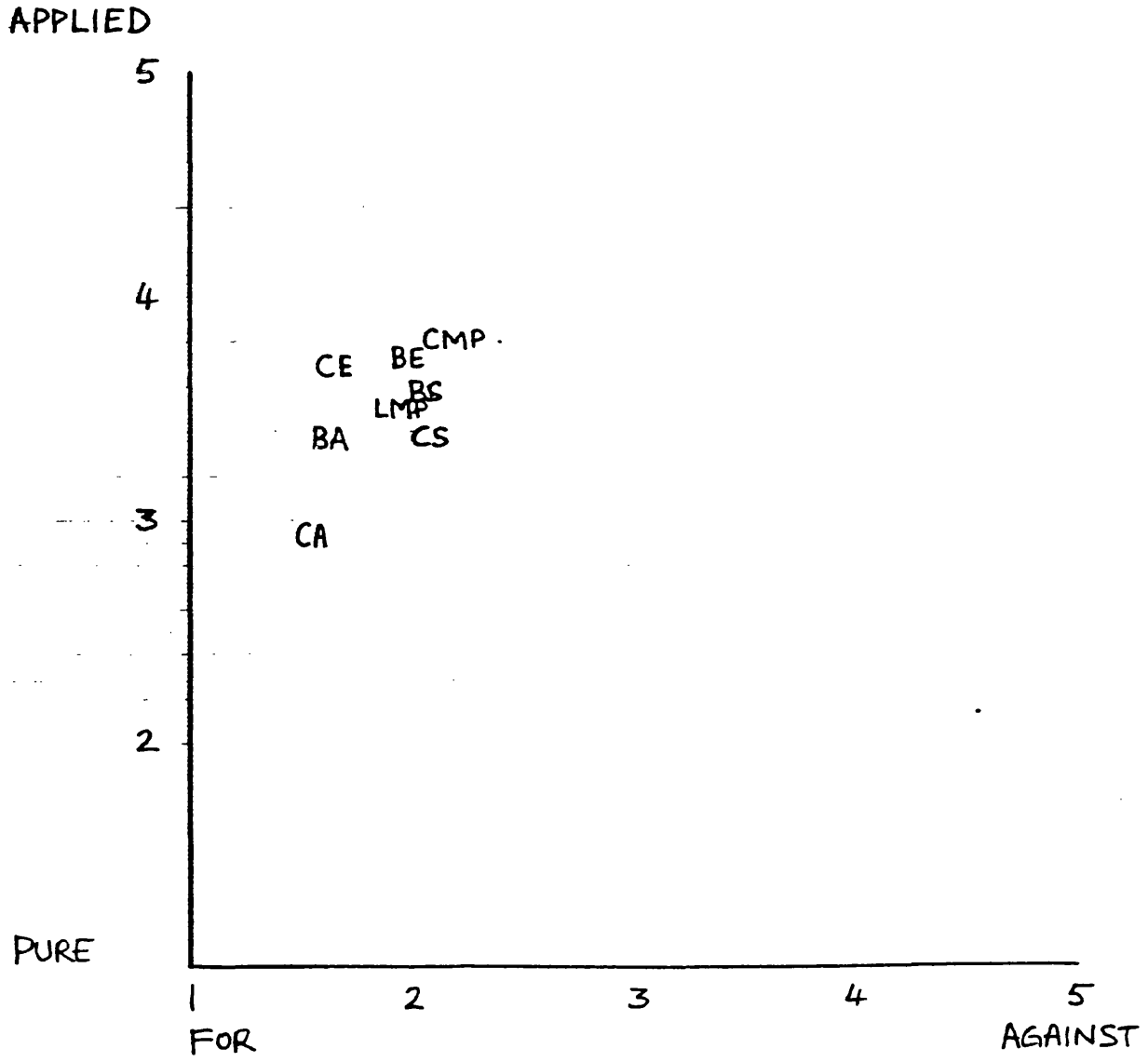
KEY

BS = BATH STUDENTS	CA = COMPARATOR ACADEMICS
BA = BATH ACADEMICS	CE = COMPARATOR EMPLOYERS
BE = BATH EMPLOYERS	CMP = CONSERVATIVE MPs
CS = COMPARATOR STUDENTS	LMP = LABOUR MPs

Figure 8

RELATIVE POSITIONS OF

SAMPLE GROUP MEANS ON RESEARCH



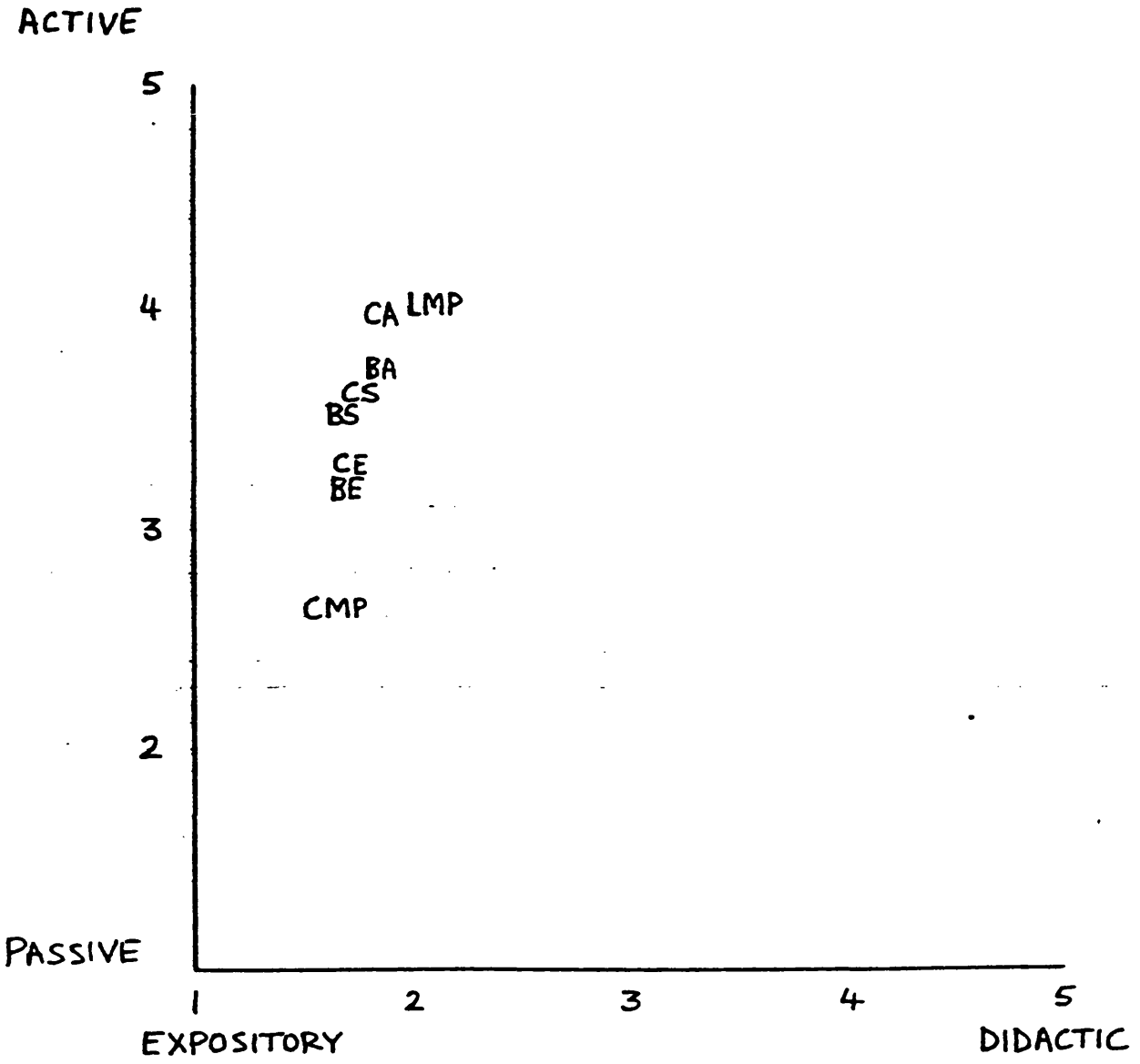
KEY

BS = BATH STUDENTS	CA = COMPARATOR ACADEMICS
BA = BATH ACADEMICS	CE = COMPARATOR EMPLOYERS
BE = BATH EMPLOYERS	CMP = CONSERVATIVE MPs
CS = COMPARATOR STUDENTS	LMP = LABOUR MPs

Figure 9

RELATIVE POSITIONS OF

SAMPLE GROUP MEANS ON THE LECTURER'S ROLE



KEY

BS = BATH STUDENTS	CA = COMPARATOR ACADEMICS
BA = BATH ACADEMICS	CE = COMPARATOR EMPLOYERS
BE = BATH EMPLOYERS	CMP = CONSERVATIVE MPs
CS = COMPARATOR STUDENTS	LMP = LABOUR MPs

five groups are very close on the expository/didactic axis and fairly close (within 0.5 on the scale) on the passive/active dimension.

The most significant point about all three graphs is surely that most groups are fairly tightly bunched. Figure 7, for example shows that the level of agreement on courses is high among all the 'internal' university groups.

Reliability of the questionnaire

The reliability and validity of a questionnaire are two important factors which must be considered when assessing the results obtained from the use of it. To the extent that a scale is unreliable it also lacks validity, (33) and the concept of reliability will therefore be considered first.

A test is perfectly reliable if the same individuals obtain exactly that same score on it on two separate occasions (assuming their attitude has not changed in the meantime); (34) in other words, a reliable test provides an accurate measurement of the attitude which it is designed to measure. Given this definition, the best way to establish a questionnaire's level of reliability is to administer it to group of respondents on two occasions and to check the correlation between the two scores. However, this procedure presents a number of theoretical and practical problems; consequently the most widely used method of determining reliability is a split-half correlation. (35) The split-half procedure involves the researcher in comparing the total score of a group on half the items in a questionnaire with the respondents' total score on the other half; it is necessary to correct for the effects of halving. (36) All methods of testing reliability have their limitations, and the level of reliability which is demonstrated by the split-half procedure must be

regarded as being specific to a particular group and time, and not as being an invariant characteristic of the instrument in question. (37)

The reliability of the present questionnaire was assessed by the split-half method. Even within this framework, there are a number of different ways of proceeding, and some of them will yield a higher correlation index than others. For example, the questionnaire contains 24 statements, and it would be possible to divide them into two groups of 12 in a number of different ways; for reporting purposes, the highest correlation could be selected. Such a procedure would, however, be pointless. The information which is needed is not the reliability of the instrument as a whole, but the reliability of each group of four statements within it: in other words, we need to know how accurate a measurement the questionnaire is likely to provide of the groups' views on each separate attitude continuum. To find that out it is necessary to carry out six separate split-half correlations.

Even with as small a number as four, there are still several different ways of dividing the items. It has already been pointed out that two statements in each group of four were phrased so that a 'strongly agree' response would score 5, and two so that a 'strongly disagree' response would score 5. It would be possible to correlate the scores on the two 1-5 questions with those on the two 5-1 questions; alternatively, there could be one of each kind of question in each pair. Again, these varying pairs yield different results. For example, suppose the total scores of all respondents on the four questions on the first issue, liberal/vocational courses, are added as follows:

question 1 + question 7

question 13 + question 24

If the correlation between these scores is calculated, and corrected to give the stepped-up reliability by means of the Spearman-Brown formula

(and the SPSS), the correlation (R) is 0.75. Alternatively, if questions 1 and 13 are correlated against questions 7 and 24, R=0.70. Naturally, it is tempting to choose the former arrangement, which is closer to perfection (1.00). In many Likert questionnaires, it is common to find that a statement appearing early in the list is complemented by its opposite, later in the list; if the split halves are arranged so that these and similar pairs are separated, more impressive values for R can be obtained than by some other arrangements.

There is a solution to this dilemma which gives an assurance that the researcher has not succumbed to the temptation to put the best possible gloss upon his results: it is to express reliability in terms of coefficient alpha. Alpha is the mean of all possible split-half coefficients (38); consequently it will, by definition, be lower than the highest figure which could possibly be obtained. In the case of the set of four questions on the liberal/vocational issue, the alpha coefficient is 0.52. This is lower than 0.75 or 0.70, but it represents a more objective assessment of reliability than would either of the other two scores.

The alpha coefficients for each of the six issues are shown in Table 3. In comparing these with the reliability indices of other instruments, care should be taken to ensure that the reliability has been calculated on the same basis in both cases. It should also be borne in mind that the alpha coefficient is partly dependent on the range of responses: with small standard deviations alpha will tend to be low, and vice versa. (39)

The SPSS reliability calculations make it possible to identify questions which correlate particularly well, or particularly badly, with the other questions in each set of four. For instance, on the broad-based/specialised courses issue, question 2 correlates well (0.72) with question 23: this is not surprising, in that the questions are opposites. Question 14, on the other hand, correlates badly with question 23 (-0.02);

Table 3

ALPHA COEFFICIENTS

ISSUE	ALPHA
COURSES: LIBERAL/VOCATIONAL	0.52
COURSES: BROAD-BASED/SPECIALISED	0.56
RESEARCH: FOR/AGAINST	0.55
RESEARCH: PURE/APPLIED	0.47
LECTURER'S STYLE: EXPOSITORY/DIDACTIC	0.46
LECTURER'S ROLE: PASSIVE/ACTIVE	0.82

this is the lowest correlation of any, and the alpha coefficent is improved fractionally if question 14 is removed from the set of four. The alpha coefficients for two other issues are also improved, though not dramatically, if two other questions are removed from their sets of four: questions 17 and 22. However, question 17 demonstrates an interesting point. Removing the question improves the reliability, which at first sight appears to make the instrument more valuable; but in fact that question reveals something important, namely that while almost all respondents are in favour of research in universities, they are not nearly so adamant that research must be undertaken by every individual academic. This situation demonstrates that reliability is not necessarily to be valued above all other considerations.

Theoretically, reliability correlations should be as high as possible. Most textbooks recommend 0.9, (40) though the reader must always be clear on what basis a figure is being recommended. Is it a figure for a test which must discriminate between individuals, with very high precision; or is it a test which only needs to be able to distinguish between very broad groups of respondents? The former calls for higher reliability than the latter. And in either case, what is the basis on which reliability is being calculated?

Generally speaking, surveys for which reliability at the 0.9 level is essential are rare. (41) Verma and Beard state that levels much lower than 0.9 are accepted in areas of attitude. (42) Moore, Nuttall and Willmott consider that when new areas of attitudes are being charted, levels of 0.60 and 0.70 are acceptable; there is no exact limit. (43) Neither of these opinions appears to be expressed in terms of alpha coefficients.

In the present questionnaire, the alpha coefficients range from 0.46 to 0.82; the mean is 0.56. It is worth considering how these figures

could have been improved (without rewriting the statements actually used). In the first place, the questionnaire could have been lengthened. McKennell's table suggests that to reach an alpha coefficient of 0.9, each issue would need to have been covered by 7 statements, all intercorrelating equally as well as the existing statements. (44) This would have produced a questionnaire with 42 statements as opposed to 24, and it is a matter of conjecture as to how far the response rate would have suffered as a result. However, the pilot test suggested that one of the questionnaire's main virtues was that it could be completed quickly. In general, long questionnaires are completed only by 'captive' populations, such as job applicants and members of the armed forces. The alternative to lengthening the questionnaire would have been to cover a smaller number of issues, each with 7 statements; but this would have reduced the value of the exercise.

Reliability could also have been increased by narrowing the focus of the issues, (45) and by ensuring that all the statements related closely to one aspect of each issue: for instance, the four statements for or against research could have been confined to research as an institutional activity rather than as both an institutional and an individual activity. The focus could have been further restricted by varying the wording of each statement only slightly: this usually improves the correlation. (46) However, this process of 'narrowing' would also have reduced the overall value of the results, particularly on this specific issue of research. Making the wording of the statements more similar might also have reduced the response rate: the intelligence level of respondents was high, and several commented unfavourably on being asked to answer the same question twice, albeit in a different form.

Moser and Kalton comment that the surveyor who wishes to measure a broad attitude either has to use a large number of items or has to

content himself with a modest level of reliability. (47) The researcher's conclusion in this case is that the levels of reliability achieved do not suggest that the wrong compromise was adopted in relation to either the number of statements on each issue, the number of issues covered, or the breadth in which they were covered. The details of the intercorrelations do, however, suggest ways in which the wording of certain questions might be improved in any future use of the instrument.

Validity of the questionnaire

Validity can be defined as the extent to which an instrument measures what the researcher wishes it to measure. (48) A reliable scale is not necessarily valid: respondents may achieve the same score on two separate occasions, but what is being measured may be something other than the intended characteristic. To use an analogy with rifle shooting, a reliable scale will form a tight group on the target, but only if the scale is valid will the centre of the group be located at the centre of the bull. Validity is thus of greater fundamental importance than is reliability; (49) unfortunately it is even more difficult to establish. Even if validity can demonstrated, it will always be specific to a particular population and time, and not an invariant characteristic of the instrument in question. (50)

There are a number of ways in which the validity of a questionnaire can be assessed, though none of them is absolutely satisfactory. (51) A scale is said to have 'face validity' if a common thread is obvious in all the scale items: this is a comparatively crude and subjective test. 'Content validity' is assessed by deciding whether the items cover the full range of the attitude under consideration, and cover it in a balanced way; this is best determined by an independent group of judges rather than by

the researcher. Thirdly, in situations where a scale is designed to be an indicator of some observable behaviour, it can have either 'concurrent' or 'predictive' validity, depending upon its degree of correlation with the present or future behaviour of the respondents. Finally there is the concept of 'construct' validity: for example, a scale might be developed to measure the strength of a person's religious faith, and the scale might be considered valid if those who scored highly on it were also regular church-goers.

The questionnaire described in this thesis is intended to assess attitudes towards what the goals of British universities should be - not the groups' estimations of what the goals actually are. Consequently the concept of concurrent validity is irrelevant and it is clearly not practical to test predictive validity in connection with this research.

Construct validity is sometimes of great value in relation to scales for new areas of attitudes, (52) but since the scale deals with attitudes towards such matters as whether research should be pure or applied, it is not appropriate to try to correlate the results with the extent to which research in the two universities surveyed actually is pure or applied; the same comment applies to the other issues covered. Nevertheless, construct validity does offer some scope for establishing the validity of the questionnaire. It would be possible, in theory, to test validity by comparing the findings produced by the instrument with other statements on the issues which have been made by the groups in question. Unfortunately, most of the groups have made no official statements which can be used for such a comparison. One group, however, has declared its views: the Conservative MPs. Insofar as Government statements about university policy can be regarded as statements of the views of Conservative MPs, it is possible to compare those statements with the findings of the questionnaire and thus to obtain at least a crude estimate

of the instrument's validity.

Recent statements in a House of Commons debate on higher education (26 October 1984) have made it clear that the Government values the humanities and the arts highly, despite the current emphasis on science, technology and medicine; (53) the 1985 Green Paper repeats this assurance (paragraph 2.11). By comparison, the survey shows that the mean of Conservative MPs' opinions lies almost exactly on the midpoint between liberal and vocational courses. This comparison is not, of course, entirely appropriate, in that humanities are not necessarily liberal and science is not necessarily vocational, but a broad-brush comparison is the only comparison available.

On the question of broad-based courses, the 1985 Green Paper makes reference to a wish to promote greater breadth for 'A' level courses (paragraph 2.5) but says nothing about broader degree courses. This is consistent with the Conservative MPs' position in the survey findings, almost on the mid-point of opinion.

The Government's commitment to research is not in doubt (54) and the survey's findings are consistent in that respect. Similarly, the Government has been accused of having an obsession with applied science and feeling that basic science can look after itself; (55) this assessment is also echoed by the survey's findings that Conservative MPs support research of the applied variety.

Finally, the Government's well known antipathy to Marxist indoctrination is consistent with the survey's demonstration of support among Conservative MPs for an expository role for academic staff. The Government has said very little about the role of academics as social critics, but the 1985 Green Paper (paragraph 1.10) does emphasise the importance of free speech within the law, even for those with unpopular views; this might be regarded as inconsistent with the survey findings. It

may be that Conservative MPs are in favour of free speech generally but are unhappy about university lecturers taking more positive action to initiate change.

Thus on five of the six issues, the results of the survey are compatible with the Government's official statements. The survey also shows that on several issues Conservative MPs are at one extreme of the eight points of view, with the Labour MPs at the other. The combination of these two sets of circumstances must lend support to the questionnaire's claim to validity; it also provides evidence for believing that despite the relatively low response rates from the two groups of MPs, the returns are in fact broadly representative of the two populations as a whole.

Two other methods which offer some scope for assessing the validity of the present questionnaire are those relating to face validity and content validity. The reader will be able to judge face validity for himself; that is to say each reader can decide the extent to which the four statements on each issue are actually relevant to that issue. (The statements are given in Chapter Eleven). Efforts were made to achieve content validity by discussing the issues with representatives of each of the groups surveyed: a full list of all those interviewed is supplied as Appendix One. The statements relating to each issue were then discussed in detail with a number of individuals with wide experience of higher education: these included both academic staff and other research students. In as small a number of items as four it is obviously impossible to cover every aspect of as broad a concept as 'research', for example. Nevertheless, as has already been indicated, an attempt was made to ensure that the four statements covered each issue as broadly as possible, even though this may have resulted in some reduction in reliability.

All these procedures go some way towards providing support for the

validity of the questionnaire; however, none of them actually proves it. In this particular instance the researcher agrees with Oppenheim, who declared that 'At present, there is no way of making sure that an attitude scale is valid.' (56)

Comparisons with other findings

Previous chapters have made it clear that there has been only a small amount of recent research, in the British context, on the areas covered by the present questionnaire. Consequently there are few findings with which the results described in this chapter can properly be compared. There would be no point, for instance, in comparing the results with the data derived from the American IGI. However, it is worth comparing the present results with those arising from the surveys mentioned in Chapter Eight, where the views of the various stakeholder groups are described.

Silver's conclusion, after reviewing the evidence, was that students generally favoured vocational courses; (57) however, the views of the students in the present survey are different. Startup found, in his 1979 survey, that students rated research as a low priority in universities: (58) again, that is not the case with students in the present survey, though they are slightly less enthusiastic about research than are their teachers.

In their 1971 survey of academic staff, Halsey and Trow found a preference for liberal education; (59) Silver endorsed this view. (60) It is also supported by the findings of the present survey. Halsey and Trow considered that academics had great faith in specialised degree courses, (61) but academics at Bath and the Comparator University both prefer broad-based courses. On research there is unanimity: Halsey and Trow (62) and the Leverhulme study (63) both demonstrated a strong belief

among academics in the value of research: the present survey does the same.

Finally, several previous studies, notably the Leverhulme seminars (64) and the Expectations of Higher Education Project (65), have demonstrated that employers do not advocate crudely vocational degree courses: the employers recruiting from Bath and the Comparator University in 1984 take the same view.

It is not considered that the fact that the results of the present survey differ from those obtained by some other researchers is revealing of any shortcomings in the reliability or validity of the questionnaire.

Suggestions for further research

In the section on reliability it was pointed out that the wording of some statements in the questionnaire could be improved. Following that step, the questionnaire could then be applied to a number of groups or sub-groups which have not so far been surveyed. The questionnaire might usefully be sent to samples of the following groups:

Sixth-formers who are qualified for university entrance but who choose not to enter higher education.

Employers who have become disillusioned with graduates and who no longer recruit from universities.

Parents of university students.

Taxpayers in general.

Lay members of university Councils.

Administrative staff.

Final-year students.

Graduates, 5, 10 or 15 years after graduation.

Academics, divided by department or according to broad area of discipline: arts, science, technology.

Academics divided by rank.

Another possibility is that separate scales could be devised for some of the issues covered by the questionnaire. In some cases these might be of value in the educational world as a whole rather than simply within universities. For example, a questionnaire consisting of perhaps twenty statements might be devised for the liberal/vocational continuum alone. Being longer, this instrument would be more reliable than the present set of four statements, and would allow individuals to identify their own position on the scale with some precision. Such an instrument might well be of value to prospective students when choosing a course. It could also be of value in schools: there is an increasing tendency to ask parents, employers and community leaders to contribute to discussions on the goals of secondary schools, and a brief questionnaire might be a useful tool at the outset of such debates. Similar scales on the expository/didactic and passive/active dimensions might be of value in training young lecturers.

Conclusions drawn from Chapter Twelve

This chapter has provided a strictly factual account of the results obtained from the application of the questionnaire. The reliability and the validity of the questionnaire have also been assessed.

The principal conclusion to be drawn from this chapter is that there is a high level of probability that the instrument identified real differences of attitude between the populations from which the samples were drawn. Furthermore, the findings represent the best evidence available as to the views of certain groups on certain issues. However, the interpretation of results is to some extent a subjective matter, and

the questionnaire was in any case not the only means used to obtain information about the attitudes of the groups in question. Part Four will therefore provide an assessment of the political and academic significance of the questionnaire findings, supplemented by other data, particularly for the University of Bath. Part Four will also provide an assessment of the overall effectiveness of the questionnaire.

NOTES ON CHAPTER TWELVE

1. Oppenheim (1979), page 34.
2. Hoinville, Jowell and associates (1982), page 6. Also Oppenheim (1979), page 34.
3. Bennett (1973), page 47.
4. Moser and Kalton (1979), page 267.
5. Ibid., pages 169 and 268.
6. Oppenheim (1979), page 34. This method was used in the CVCP inquiry into the use of staff time; see Committee of Vice-Chancellors and Principals (1972a), page 6.
7. Oppenheim (1979), page 34.
8. Straw, Jack (1984).
9. Gross and Grambsch (1968), pages 21 and 108.
10. Peterson (1973), page F4.
11. Halsey and Trow (1971), page 509.
12. Laycock (1979), page 3.
13. Bacon, Benton and Gruneberg (1979), page 95.
14. Uhl (1971), page 2.
15. Moser and Kalton (1979), page 431.
16. Johnson (1977), page 174.
17. See Dunford (1970), Miller (1974) and Taylor (1975); these researchers are all American.
18. See Nosow and Clark (1976) and Romney (1978); these studies also relate to American institutions.
19. Entwistle (1973), page 52.
20. For instance, Peterson and Uhl (1977) provide detailed formulae for making such comparisons, based on results obtained from the Institutional Goals Inventory. See also the PhD theses referred to in note 17 above.

21. Peterson and Uhl (1977), page 79.

22. Johnson (1977), page 181 and page 194. Also Moser and Kalton (1979), page 444.

23. See Moser and Kalton (1979), page 76. Also Johnson (1977), page 184.

24. Johnson (1977), page 181.

25. Huff (1980). See page 14 for an example of an apparently intelligent man who assumed that the findings of a survey were true of an entire population when the response rate was less than 10 per cent.

26. Radical Statistics Education Group (1982).

27. The researcher is indebted to Dr. C. Chatfield of the University of Bath for discussions on these points.

28. Nie (1980).

29. Peterson and Uhl (1971), page 12.

30. Chatfield and Collins (1980), page 89.

31. It should be remembered that some of the samples were derived from stratified sampling frames and some were not, and that the sizes of the samples were not exactly the same. However, the researcher was advised that these factors would have had a minimal effect on the outcome of the analysis of variance.

32. Peterson and Uhl (1977), page 52.

33. Moser and Kalton (1979), page 355.

34. McKennell (1970), page 228.

35. For a fuller discussion of these methods see Moser and Kalton (1979), page 354.

36. Ibid., page 357.

37. Ibid., page 354.

38. McKennell (1970), page 229.

39. Peterson and Uhl (1977), page 49.

40. For example, Verma and Beard (1981), page 87; Moore, Nuttall and Willmott (1973), page 69.

41. McKennell (1970), page 236.

42. Verma and Beard (1981), page 87.

43. Moore, Nuttall and Willmott (1973), page 69.

44. McKennell (1970), page 230.

45. Moser and Kalton (1970), page 355.

46. McKennell (1970), page 239.

47. Moser and Kalton (1979), page 355.

48. Bennett (1973), page 17; also Moser and Kalton (1979), page 355, and Moore, Nuttall and Willmott (1973), page 32.

49. Moore, Nuttall and Willmott (1973), page 30.

50. Moser and Kalton (1979), page 357.

51. These are usefully summarised by Moser and Kalton (1979), pages 355 to 357.

52. Moore, Nuttall and Willmott (1973), page 32.

53. Gold (1984).

54. Footman (1982), pages 6 and 7. See also CMND. 9524 (the 1985 Green Paper), paragraph 5.3.

55. Turney (1984). Also CMND. 9524, paragraph 5.3.

56. Oppenheim (1979), page 122.

57. Silver (1981), pages 31, 58 and 60.

58. Startup (1979), page 131.

59. Halsey (1979).

60. Silver (1981), page 24.

61. Halsey and Trow (1971), page 488.

62. Ibid., pages 278 and 280.

63. Scott (1982b).

64. Blaug (1982), page 170.

65. Kogan and Boys (1983), pages 4 and 7.

PART FOUR

CHAPTER THIRTEEN: THE POSITION IN THE UNIVERSITY OF BATH IN RESPECT OF THE SIX ISSUES COVERED BY THE SURVEY

Introduction to Part Four

Chapter Twelve provided a factual account of the findings of a survey of the attitudes of certain groups to six issues. However, as Moser and Kalton point out, there is more to a piece of research than can be seen from the tables, and while every reader is entitled to draw conclusions from the facts presented, the writer of a survey report has a duty to state his own conclusions. In fact, Moser and Kalton advise the researcher to go further:

> 'The researcher who cautiously confines his conclusions to those strictly justified by the data may be safe from criticism, but he is not making his own full potential contribution. There is surely room in every research report for the research worker's own ideas and speculations, even if he cannot offer chapter and verse to substantiate them. In the course of his work he must inevitably develop theories and hunches, and, so long as he makes clear that they are no more than this, it is a pity to omit publishing them with the results.' (1)

This advice has been heeded, and Part Four therefore includes not only factual material but also the researcher's own opinions and conclusions drawn from the contents of the thesis as a whole. Where necessary, 'theories and hunches' are identified.

The aims throughout Part Four, as in the rest of the thesis, are to clarify issues relating to university goals, to encourage discussion of topics which are often avoided, and to provide practical asssistance to those who wish to determine what the goals of universities actually are,

what they could be and what they should be.

American research into university goals has shown that the findings of attitude surveys sometimes make little impact; they tend to lie, undisturbed, in filing cabinets. Ideally, therefore, the results should be discussed with representatives of the groups surveyed. This is desirable for two reasons: first, because the findings need to be communicated in detail; and secondly, because the findings may draw attention to features which require further exploration. Chapter Thirteen therefore records the researcher's conclusions about the academic and political implications of the findings of the survey which was described in Part Three; these conclusions were reached after a series of interviews, chiefly with members of the academic staff of the University of Bath, but also with others, such as Members of Parliament and officers of the UGC. The chapter begins with a statement of the methodology adopted to assemble information about the University of Bath which would supplement that provided by the questionnaire. This supplementary information indicates that in the (nearly) twenty-year life of the University, certain changes have occurred in the criteria used to appoint academic staff, and in the intelligence, age and background of the students admitted; these changes are described. The University of Bath's position, as of mid 1985, on the six main issues covered by the survey is then considered. A summary of the implications of the survey findings for the Comparator University is also provided, and the chapter ends with an assessment of the value of the questionnaire.

Chapter Fourteen examines the environment of British universities in the mid 1980s and identifies the major factors which are affecting, or are intended to affect, the universities' choice of goals. A number of relevant bodies have recently expressed strong views on the ways in which universities should respond to the needs of the environment; these views

have been recorded in such documents as the Leverhulme Report, the Jarratt Report, UGC circular letter 12/85, and the Government's Green Paper on higher education. The implications of all these documents are considered.

Chapter Fifteen summarises a number of ways in which organisations can clarify the goals of universities. Three planning models are described: the autonomous model, the centralised model, and the compromise which is found in the British university system. Suggestions are made for improving the British system.

Chapter Sixteen moves from the consideration of goals by organisations to the consideration of goals by individuals. Organisations are simply groups of individuals, and if organisations are to make rational decisions about goals it follows that as many members of the organisation as possible must be in a position to make informed judgements. Chapter Sixteen therefore provides individual readers with a method of inquiry by means of which they can investigate (i) the goals preferred by the environment of British universities, and (ii) the explicit and implicit goals within any particular university, at any given time. Armed with the results of this inquiry, the reader will be in a position to decide whether or not he is satisfied with the goals which are being pursued either by the university system as a whole or by one university in particular.

Chapter Seventeen applies the method of inquiry described in Chapter Sixteen to the University of Bath: the goals of the University are analysed, together with the goals of one School and one degree course within that School. Comments are made on the results of the analysis, and on the practicality and effectiveness of the method of inquiry itself.

The final chapter, Chapter Eighteen, records the conclusions and recommendations which have been drawn from the thesis as a whole.

The methodology of Chapter Thirteen

When it comes to drawing conclusions from survey findings, Oppenheim warns us that 'Survey literature abounds with portentous conclusions based on faulty inferences from insufficient evidence wrongly assembled and misguidedly collected.' (2) The potential pitfalls in drawing conclusions from the present study must therefore be noted.

In the first place, questionnaires can only measure 'avowed attitudes': that is to say, the responses give no indication as to whether an individual will be prepared to act in accordance with his beliefs. This is particularly relevant in a university context, where an individual may sometimes be unwilling to speak out on a particular issue: for example, a member of academic staff may feel (rightly or wrongly) that his head of department will not support him for promotion if he argues for changes in a course's content. Secondly, individuals vary widely in their position and influence: a probationary Lecturer and a Pro-Vice-Chancellor each count as one response to a survey, but the latter's contribution to policy is very much greater than the former's. Thirdly, individuals with strong views are more likely to express them in action than are those who have mixed feelings about an issue, though again both count equally in assessing a group's attitude.

The position with regard to the influence of the various groups covered by the survey is also more complicated than might appear at first sight. In a university, decisions are taken at different levels. For example, an individual lecturer can often decide (within limits) whether or not to undertake research, and what kind of research to pursue. However, the details of a teaching syllabus are normally decided by a departmental or faculty committee; and a decision on whether or not to establish or close down a department is normally one which is made by

the university through its Senate, Council and Court. It is therefore quite possible in practice for a minority group, which holds a different view from the majority, to impose its will on particular issues in particular circumstances: for example, the members of a department of Physics may be able to introduce a highly vocational course even if the overall academic view within the university favours liberal courses. Similarly, even if the range of opinion across the university as a whole is narrow, there may be bitter divisions within a particular department. Thus the mean view of the academic staff as a whole, as revealed by the present questionnaire, or by any other, may not necessarily be the critical factor in some circumstances. This is one reason why it was considered necessary to obtain information over and above that provided by the questionnaire.

The survey described in Part Three measured the views of certain groups on what should be happening in universities in relation to six issues. This chapter therefore considers two principal questions on each issue:

(i) As far as the University of Bath is concerned, are there any significant variations in the attitudes of the various groups? Significant differences in this chapter are defined as ones which are likely to lead to academic or political conflict.

(ii) Even if the groups are in harmony on what the position should be, are there any significant discrepancies between what the groups think should be happening, and what actually is happening in the University of Bath?

The second question calls for information on the practice and policy of the University of Bath, and the ways in which this information was obtained are described below.

The two principal questions stated above can be broken down further as follows:

(i) Possible conflicts between what the groups think the position <u>should be</u>:

(a) Is there internal harmony, or is there potential (or actual) academic conflict between:

Bath academics,

Bath students, and

Bath employers?

(The employers are regarded as an internal group for this purpose because, like the students, they do not have to come to Bath; they choose to do so. In answering this question it may be useful to compare each of the above groups' views with its counterpart in the Comparator University.)

(b) Is there external harmony or is there potential (or actual) political conflict between Bath academics (the dominant group in the University) and the environment? (For the purposes of this question, the two groups of MPs are regarded as 'the environment'.)

(ii) Possible conflicts between what the groups think the position should be and what it actually <u>is</u>. Entwistle and Percy have shown that a lecturer may believe one set of aims to be appropriate and yet in practice - for whatever reason and perhaps unknowingly - be pursuing others. (3) Such situations can exist without conflict. Nevertheless it is often the case that groups which are dissatisfied with the status quo will seek to effect change. Such attempts are inevitable from time to

time and are often healthy, but they can lead to damaging disputes in which much good work is destroyed. It is therefore necessary to consider whether there are potential or actual conflicts either within groups or between groups, on each issue, particularly with respect to the following:

Bath academics

Bath students

Bath employers

Conservative MPs

Labour MPs

Throughout the remainder of this chapter, references to the opinions of groups are references to the mean point of each group's spread of opinion, except where standard deviations or the level of agreement within a group are specifically mentioned. Readers may find it useful to refer to Figures 1-6 in Chapter Twelve as necessary.

In order to answer the questions listed above it was necessary to obtain evidence about the University of Bath to supplement that provided by the questionnaire. During the academic sessions 1983/84 and 1984/85, the University of Bath's Long-term Planning Committee (LTPC) undertook a detailed review of all 14 Schools in the University. The review required each School to describe in detail its current activities and its future intentions. The researcher had access to all this material and indeed was present when representatives of the Schools discussed their situation with the LTPC. Subsequently, one long-serving member of staff in each School was interviewed; the person selected by the researcher was in every case someone other than those who had given evidence to the LTPC. These interviewees were in no sense offical spokesmen for their Schools but they were all personally known to the researcher, who was

thus able to allow, at least to some extent, for any bias in their responses. In addition, the Vice-Chancellor, the Secretary and Registrar, the Planning Officer and the Chairman of Academic Assembly were also interviewed. (A full list of those interviewed is provided as Appendix One.) The interviews were 'guided' or 'semi-structured' - that is to say, the interviewer had a basic list of questions (set out below), but if necessary supplementary questions were asked and the order and wording of the questions were sometimes varied. Two sources of information, i.e. the LTPC data and the interviews, were necessary is order to obtain different perspectives on the same issues. (4)

The members of staff of the 14 Schools of the University of Bath who were interviewed in connection with this chapter were asked the questions listed below. The choice of questions was determined by consideration of the survey results.

(i) Academic staff

How many academic staff in the School were recruited before the institution became a university?

Have the criteria for selecting academic staff changed during the lifetime of the University? For example, is industrial experience still considered desirable?

(ii) Students

Have you noticed any changes in the type of students coming to the University? For example, changes in social class, balance of sexes, attitude.

(iii) Courses: liberal or vocational?

Where do the courses offered by the School currently lie on the liberal/vocational spectrum?

Does the School prepare students for a specific career?

Have there been any changes in this aspect of the School's courses in the lifetime of the University? If so, what and why?

In the case of sandwich courses, is the academic content significantly different from the degree courses offered by civic universities?

(iv) Courses: broad-based or specialised?

Do you consider the courses offered by the School to be broad-based or specialised?

Has there been any change in this respect in the lifetime of the University? If so, what and why?

(v) Research: for or against?

What is the present level of emphasis on research in the School?

What proportion of staff are active in research? Do some staff resist/resent the pressure to undertake research?

To what extent have attitudes to research changed in the lifetime of the University? Why?

(vi) Research: pure or applied?

Is the distinction between pure and applied research relevant in your School?

Which type of research is favoured within the School, by whom, and why?

Have there been any changes in the preference for one type or the other during the lifetime of the University?

(vii) Lecturers: expository or didactic style?

Is the distinction between an expository and a didactic teaching style relevant in your discipline?

If it is relevant, which style is preferred and why?

Has the preference changed during the lifetime of the University? If so, why?

Are there any staff who teach in a style other than that generally preferred in the School?

(viii) Lecturers: passive or active role?

What is the preferred role for academic staff of the School in relation to society?

If there is a preference, why is that particular role dominant?

Has there been any change in the preferred role during the lifetime of the University? If so, why?

Implications of the information obtained from the survey and interviews

(i) Changes in academic staff

The interviews made it clear that since the University of Bath was established (in 1966) there have been several important changes in the criteria used to appoint staff.

The main finding is that a research record or research potential are now the overwhelmingly important factors in the appointment of staff. Representatives of 4 Schools (out of a total of 14) which used to regard experience of industry as important reported that in recent years research prowess had become far more weighty a factor. Similarly 4 Schools reported that teaching ability was much less highly regarded than in the past. One School, which had originally selected staff for their high level of practical ability in a professional field, has recently appointed an individual who holds no professional qualification and who has never

practised, but is an experienced researcher. Several representatives commented that even if the School wished to continue the old policy of appointing staff with industrial experience, it would not be possible to attract such applicants because salaries for competent professionals are now higher in industry than in universities; this is particularly true of the engineering disciplines. The University of Bath is therefore losing one of its distinctive characteristics. Halsey and Trow found that, in 1971, 41 per cent of staff in the former Colleges of Advanced Technology (CATs) had had industrial experience, compared with only 1 per cent in more traditional universities. (5) On a subjective estimate, the proportion of staff with industrial experience appointed in the University of Bath over the last ten years must be much closer to the 1 per cent than to the 41. This is reflected in the qualifications of staff. Originally the CATs placed a high value on professional training and qualifications, but by 1971 Venables detected a marked increase in doctorates, with 42 per cent of staff at technological universities then having a PhD. (6) In the years 1981 to 1985 the proportion of staff passing through probation in the University of Bath who held a PhD degree was 77 per cent. (7)

(ii) Changes in students

The main change observed in students admitted to the University over the past twenty years is that they have become more intelligent, at any rate in terms of 'A' level scores. Many Schools which used to be happy to admit students with 6 or 7 points at 'A' level (an A grade = 5 points, B = 4, etc.) now regularly demand 12 points; the average for all students admitted in 1984/85 was 12.8 points. However, not all staff regard this change as advantageous. Motivation, which was once the deciding factor for an Admissions Tutor, may be absent even in students

with 15 'A' level points. Some staff consider that although students in the early days were less bright, they had a clearer vision of what they were trying to achieve and were more mature in their approach. Such students would team up to help a weak student to succeed, but today's students would be less likely to do so.

In 5 Schools there has been a marked change in the age and background of the students admitted. Originally, many applications came from young people in their early twenties with experience of industry and with hard-won qualifications other than 'A' levels. Such students were noticeably older than the present recruits, and were more committed to the subject of their choice. The 5 Schools in question now recruit nearly all their students from the normal eighteen-year-old/'A' level pool.

Seven Schools reported that more students are now drawn from the middle class than was the case in the early days of the University; five Schools have a larger proportion of students from independent Schools. Five Schools have noticed an increase in the proportion of women students.

(iii) Courses: liberal or vocational?

Perhaps the most surprising piece of information provided by the questionnaire was that, overall, Bath academics were not in favour of vocational courses (as defined by the statements). Of the 59 respondents in the Bath academics' group, 39 had a mean score of 2.75 or less and only 13 had a mean score of 3.25 or over. The Comparator academics were slightly more liberal in their preference, but not dramatically so. This result is perhaps not what might have been expected in the light of such factors as the University of Bath's history, the absence of many important arts subjects, the large number of sandwich courses, and the

nature of its Charter; the Charter specifically calls upon the University to work in close association with industry and commerce. (However, it has to be remembered that Bath abandoned the title of 'University of Technology' in 1971.) Surprising or not, the preference of Bath academics was not far removed from that of Bath students and Bath employers, though both of those groups were a little more vocational in their preference. Assuming that opinions have remained stable since the questionnaire was circulated, it seems that there is no actual or potential conflict between the three key groups in the University of Bath on the question of how liberal or vocational degree courses should be. (There is, however, a growing conflict within the Bath academics' group which will be discussed below.)

There also appears to be no major conflict between the opinions of Bath academics and the two groups of politicians: in Figure 1 Bath academics lie almost exactly between the Labour and Conservative MPs - not, perhaps, a bad place to be; Bath academics are not far adrift from Comparator employers either. Overall these results indicate that at the time of the survey Bath academics were in tune with the environment on this issue.

When the courses which actually are offered by the University of Bath are examined, a curious paradox is revealed. Thirteen of the School representatives who were interviewed (out of a total of 14) reported that the degree courses in their Schools actually are vocational in nature - some of them extremely so. Six respondents stated that the vocational emphasis was provided by the sandwich element: in some instances the courses are not in themselves very different from those offered in a typical civic university, but the industrial placement serves to focus the students' attention on the vocational implications of the course. Three Schools appear to be becoming more vocational in emphasis and in two

there is considered to be some movement in the other direction. One interviewee, a number of staff of nearly thirty years' standing, claimed to be able to predict changes in attitude towards the liberal and vocational elements of his discipline, as he had experienced the complete cycle several times before.

This discrepancy between what is actually the case and the Bath academics' opinion of what should be the case is potentially a very serious matter. Its origin probably lies in the change in the type of person recruited. The lecturer recruited in CAT days typically had some years of industrial experience, was anxious to equip his students to work in the real world, and liked nothing better than to place his best students in firms where they would be at home. However, for at least a decade that type of person has no longer been recruited; the preference now is for a researcher first and foremost. With a chronic shortage of posts in the university system as a whole, would-be academics have tended to apply for any and every vacancy available, regardless of the ethos of the institution. Consequently the University of Bath, knowingly or unknowingly, has recruited staff who are not in sympathy with the University's original goals (even allowing for the fact that the goals were ill-defined.) In at least one School this situation has given rise to a bitter, divisive and damaging dispute about the type of course which should be offered. The School currently offers a course which was designed specifically to meet the needs of industry. The companies which sponsor students on the course would like to see recruitment increased to include virtually all undergraduates in the School; the two Professors, on the other hand, would like to see the course much reduced in size and would prefer students to take an orthodox three-year degree. After protracted and unhappy negotiations, a compromise has been reached. The result satisfies no one, and sponsors are now suggesting to students

that they should take a degree elsewhere. Thus a School which was once united in its rationale and which was in tune with the wishes of its stakeholders is now suffering from internal dissension on a large scale, severe lack of morale, and dwindling external esteem. The cause lies in the fact that the University has recruited staff with a different set of goals to those prevailing in the original institution. This may have been the result of a conscious decision by an individual or a group of individuals somewhere within the system, but it has certainly not been done as the result of an open debate resulting in an agreed change of policy for the University as a whole.

The chief danger for the University, in respect of the students generally, is that the courses at Bath may prove to be too crudely vocational to satisfy the students' preference for a more liberal education. To some extent this danger may be overcome by the provision of better facilities for extra-curricular activities; there are already excellent opportunities for sport and physical recreation, and the University is trying to raise funds to build an Arts Centre. It would, however, be helpful if the University were to measure the degree of satisfaction expressed by students on leaving the University, on a regular basis. Such information might highlight areas in which the University failed to meet students' expectations. At present, demand for admission to Bath is so strong that the relevance of such data may be overlooked. It would also be useful to measure the level of satisfaction with Bath graduates among employers. As far as MPs are concerned, the courses at Bath would appear to be sufficiently vocational to satisfy the Conservatives, though if the Labour Party were to form a government the University might have to stress rather different aspects of its activities.

It will be recalled that not even one group, out of the 8 sampled, favoured vocational courses. Fifty-two per cent of all respondents

disagreed or strongly disagreed with the statement that a university degree course should prepare a student for a specific career, and 59 per cent agreed or strongly agreed that the main aim of university degree courses should be to produce well-rounded human beings. These responses are surely testimony to the great strength of the liberal tradition. The Bath academics' responses also indicate that the worst fears of some commentators have come true; in the 1960s there were those who argued that the CATs should not become universities because if they did they would abandon some of their major functions and characteristics and would succumb to the temptation to join 'the university club'. (8)

(iv) Courses: broad-based or specialised?

The three Comparator University groups - academics, students and employers - all showed a slight preference for broad-based degrees. This is not surprising given the inter-disciplinary nature of the first year of undergraduate study at that university. Again, however, it is slightly surprising to find that the three Bath groups are positioned at almost exactly the same point on the continuum as their comparators. The explanation, as far as academics are concerned, may lie in the fact that in recent years the two universities have been recruiting much the same kind of person from much the same pool. In any event, there seems to be internal harmony within the University of Bath on the extent to which courses should be broad-based or specialised.

There is quite a large difference on this issue between the preference of Conservative MPs and Labour MPs. However, Bath academics are once again strategically positioned between the two, thus minimising the risk of serious political conflict.

The question of how broad-based the Bath University courses

actually are in practice is not easy to resolve. British first-degree courses as a whole are notoriously specialised, as indeed are our sixth-form courses. The Robbins Report argued over twenty years ago for a widening of the university curriculum, but without much obvious success. Within this national context of relatively specialised degrees, it appears that the Bath University courses are relatively broad; in interviews, 12 of the School representatives (out of a total of 14) estimated that this was true of their Schools. One or two courses are very narrow in their approach: in one of the science Schools, for example, not only is there no leavening of, say, management studies, but not even the history of that particular science is taught. The explosion of knowledge in the discipline has been such that it is considered necessary to focus on transmitting as much of it as possible, to the exclusion of all else. Such courses are, however, the exception. Five Schools reported a slight trend towards greater specialisation, while 3 claimed to be trying to broaden the course; movement in either direction is slow. This does not, therefore, appear to be an issue which is likely to generate serious conflict either within the Bath academics' group or between that group and others. As far as students and employers are concerned, the reality at Bath appears to match the preference of the two groups. In terms of political accountability, the University could present an argument which would satisfy either the Conservative or the Labour Party by selecting the appropriate facts to emphasise.

Nationally, there are once again moves being made to broaden the sixth-form curriculum and the Chairman of the UGC has pointed out that this must inevitably involve a change in degree courses. (9) Whatever the rights and wrongs of these pressures, they will be received with some sympathy within the University of Bath. That is not to say, of course, that the University would be prepared to see the traditional honours

degree deteriorate into a patchwork quilt of subjects which neither individually nor collectively constitute a worthwhile study.

(v) Research: for or against?

The survey results on the issue of whether research is an essential activity for a university or not represents an unqualified triumph for the research lobby. Among Bath academics, 59 of the 62 respondents had a mean score of 2.5 or less, and none had a score greater than 3. Even when the unrelenting emphasis which has been placed on research within the University over the past few years is taken into account, these figures show a surprising level of agreement. The results for the two sets of first-year students and employers are also impressive: both students and personnel officers might well have been expected to be relatively unconcerned and uninformed about research; in fact, 62 out of 64 Bath students had a score of 2.75 or less. Both sets of MPs were also surprisingly convinced that research is an appropriate function for universities. Bath academics are even more strongly in favour of research than are Bath students, Bath employers or the MPs, and this must be borne in mind in assessing both internal and external harmony on what the position should be. However, the case for research was clearly accepted in principle by all the groups surveyed.

Each interviewee from the Schools of the University of Bath was asked to indicate the present level of emphasis on research within his School. Most reported that research was emphasised very heavily: one described the situation as 'frantic'. Even in the College of Advanced Technology some appointments were made with at least half an eye on research, but teaching was then the institution's chief preoccupation. The impression is now widespread that the establishment considers teaching to

be far less important than research.

The proportion of staff who are actively involved in research varies from School to School: in one School there is 100 per cent involvement; in others the level is as low as 50 per cent. Some staff, appointed before the CAT became a university, were never selected for their research potential and now will freely admit that they have either the inclination nor the aptitude for it. Other staff are capable of undertaking research and have produced good work in the past, but have either run out of ideas or have become disenchanted with the system.

There is ample evidence to suggest that some Bath academics are genuinely convinced that while research is an essential activity for a university, it is not necessary, or even desirable, that every member of academic staff should be involved in it. (10) This situation presents a number of problems, both actual and potential. The UGC's circular letter 12/85 (of which more will be said in the next chapter) has resulted in even greater pressure to produce research being applied by Senate and Council; but by no means all Bath academics are convinced that this road leads to salvation. There are those who believe that the institution made its name by providing vocational courses which were exceptionally well taught. They now see the teaching function being downgraded almost to the point where it is ignored, and they question the practical value of the research papers which are occupying staff time in place of teaching. In the previous section it was mentioned that the Professors in one School would like to see a highly vocational, industry-based course replaced by a traditional three-year degree. They have two main reasons for wishing to bring about this change: one is that the existing course takes up time which could otherwise be devoted to research; the other is that virtually all the best students go straight into well paid jobs in industry and cannot be tempted to become postgraduate research students. The issue of

research is therefore one which is already a source of conflict within the Bath academic staff and the conflict seems likely to intensify.

There is no evidence to suggest that many students are seriously dissatisfied with the teaching they receive at Bath. However, if the pressure on research leads to a marked reduction in the care and attention given to undergraduates, and in some Schools it has already done so, there may well be a future conflict between students and staff which will have damaging consequences. At present, demand for admission to Bath is very strong, but a falling reputation for the care and attention devoted to students, coupled with a fall in the number of eighteen-year-olds, could have far-reaching effects. If the University remains determined to increase its research output it should ideally find some way of maintaining its teaching quality at the same time. Officers of the Students' Union have already expressed concern on this point in Senate.

The main concern of employers is undoubtedly the skills of the University's graduates. Any deterioration in the quality of Bath graduates would make employers less willing to sponsor students during their course and/or to recruit them at the end of it; that in turn would also affect the demand for admission.

MPs of both parties clearly expect the University to be fully involved in research; the University is therefore responding to the environment in that respect.

(vi) Research: pure or applied?

All three Bath groups favoured applied research, which is what might have been expected in light of the origins of the institution. Bath academics were in this instance different from the Comparator academics,

whose mean falls just on the pure side of the line. On the face of it, the results shown in Figure 4 suggest that there is no likelihood of serious conflict between the Bath groups on the nature of the research which should be pursued. However, it is only necessary to hear a few academics speaking of 'dirty money' from industry to realise that there is a risk of internal conflict within the Bath academics' group. Furthermore, not even Bath academics are as enthusiastic about applied research as are the MPs, particularly the Conservatives.

When it comes to the facts of the situation, rather than opinions on what should be happening, the interviewees claimed that in nearly all Schools applied research is being undertaken to a greater extent than pure, with some Schools being heavily biased towards the applied end of the spectrum. This assessment is subjective, and it may be true that a larger number of staff are involved in applied research than in pure. However, figures presented to the University Council (paper C84/85 10) show that in 1983/84 the University derived only 12 per cent of its external research income from UK industry and commerce, compared with 39 per cent from the Research Councils. Five interviewees detected a swing towards applied research over the past few years, and in one School only is the trend perceived to be from applied to pure: this is the same troubled School which is retreating from the vocational emphasis in the degree course. The trend towards applied research seems likely to continue: several Schools wish to build on their existing research strengths in areas such as operations management and information technology. The University is also increasingly conscious of the need to increase its applied research and consultancy in order to generate income.

Within the university system as whole many academics believe strongly in the importance of pure research, either because they wish to discover scientific truth for its own sake or because they know that in

the past pure research has led to discoveries of enormous practical value. However, the lead time for extracting practical benefits from 'blue-sky' research is sometimes as long as twenty years, and politicians, ever conscious of the considerable costs, are often anxious to obtain short-term returns. On the national front, therefore, there is a problem: university leaders who believe in the importance of blue-sky research are going to have to put their case forcefully to the paymasters.

One other interesting problem is presented by the survey results on this issue. Why should the academic staff at the University of Bath, a former CAT, favour applied research but not vocational courses? There is no obvious answer to this question, but the need to generate income, from whatever source, may be one factor. Perhaps the staff concerned also take the view that in this fast-changing world a crudely vocational course is not in fact vocational at all: in the latter part of the twentieth century specific knowledge can be out of date very quickly. Perhaps, therefore, staff are concluding that to equip undergraduates for forty years of working life it is going to be necessary to teach more of what might be called career skills.

(vii) Lecturers: expository or didactic style?

Reference to Figure 5 will readily confirm that all 8 groups of respondents were heavily in favour of an expository style for lecturers when dealing with controversial topics: that is to say, all groups believed strongly that academics should set out both sides of an issue and encourage students to form their own conclusions. Lecturers are clearly 'allowed', and even expected, to make their own views clear, but very few individuals, least of all Conservative MPs, wish to see lecturers slanting their teaching in a particular direction. In conversation with

academic staff, MPs and others, the researcher was told repeatedly that 'of course' this is the only acceptable approach. And yet there is no inevitability about it: in the not-so-distant past, it would have been unthinkable for Oxbridge students not to have been taught according to the precepts of the Church of England; and it seems unlikely that contemporary Chinese or Russian students are encouraged to form their own views about the virtues of capitalism.

Internally there is no risk of dispute among the Bath groups about what the role of academic staff should be in respect of this issue. Externally, Labour MPs are less convinced than most other groups, but they are still positioned well towards the expository end of the spectrum and there is therefore no likelihood of conflict with the environment either.

When we come to examine what is actually happening in practice, rather than opinions of what should be happening, a number of problems emerge. First of all, 8 out of 14 School representatives reported that the question of 'controversial issues' was scarcely relevant in their discipline. It was claimed that in large areas of science and technology there are only 'the facts', 'the truth', and nothing else; any controveries which exist are at a high level, beyond that usually reached by undergraduates. In the Schools which do accept the relevance of the question, it is the expository style which is generally favoured. Lecturers who operate in the didactic mode - and there are a few - tend to generate resentment among colleagues and students alike.

This situation illustrates a potential source of danger, not only for the University of Bath but for other universities also. The level of agreement on this issue is so high, and opinion is centred at a point so far towards the end of the scale, that the few exceptions to the general rule are likely to stand out all the more clearly and may well prove of

interest to the news media. The most obvious risk is that a dedicated and stubborn Marxist will attract the attention of those who fear political indoctrination of that particular variety. A recent report submitted to the Secretary of State for Education and Science has suggested that a body should be set up which would recommend the withdrawal of state funding from institutions which engage in 'blatant indoctrination'. (11)

(viii) Lecturers: passive or active role?

Bath academics and Bath students were in reasonably close agreement on the role which academics should adopt in relation to society. Internally therefore there seems to be no risk of conflict. Bath employers were not in such close harmony, and on this issue their views were almost identical with those of the Comparator employers; both groups may perhaps be regarded as representative of the public at large.

Externally the picture is very different. Conservative MPs' opinions were far removed from those of Bath academics. The Conservative MPs as a group clearly do not wish to see academics becoming involved in public controversy and attempting to change society; the risk which this attitude represents will be discussed later in this section.

Inquiries about what role academics in the University of Bath actually are adopting in relation to society produced some interesting results. In several instances (8 out of 14) the interviewees pointed out that scientists are trained to be extremely cautious about voicing an opinion unless they are certain that they are right; consequently scientists tend to be non-commital on controversial matters, at any rate in writing. One interviewee quoted the example of acid rain: a respected Oxford Professor is trying to persuade his colleagues, in all universities, that the facts on acid rain are so well established that they should speak out as a

body; he is apparently not having much success. In many Bath disciplines there is no conflict arising on the issue of the academic's role in society precisely because the natural inclination of many staff is to maintain a very low profile.

In at least one School there are groups of academics who are consciously trying to shift public opinion; within that same School there are those who argue in favour of the passive mode, but at present the argument is being conducted without heat. Internally, therefore, although there is no unanimity of view, the conflict is lively rather than divisive.

The main problem is the external one. The issue of the academic's role in relation to society is particularly important because in the past certain universities have been damaged by bad publicity to an extent which was out of all proportion to the original incident: Stirling and Essex are two cases in point. Thus the senior officers of all universities might well be concerned about the activities of outspoken staff who are determined to effect change. Academics have no special right to make public pronouncements, but they are often in a position to have detailed knowledge of controversial issues, and they have tenure, which is designed to protect them while expressing unpopular views. This combination of circumstances is designed to benefit society, and does so, but it is also a recipe for a public-relations disaster in particular instances. Just as a university can benefit from the presence on campus of a Nobel prize-winner, so it can be harmed by eccentrics, or even by ordinary men and women with strong views on controversial issues; one currently sensitive topic is the use of animals in laboratory experiments.

Universities which are aware of this danger must try to create among their staff an awareness of the delicacy of the situation while at the same time not appearing to impose censorship or to stifle free speech. Consider, for example, the question of writing letters to the

press. One interviewee claimed that in his discipline no academic would ever write to the press from a University of Bath address: to do so would be to break an unwritten rule. In other Schools it would be considered eccentric to do other than write on a University letterhead: writing from one's home address would be to ignore an opportunity to add weight and credibility to one's views. There is thus a difference in the conventions which apply in various disciplines or Schools. At present no School in the University has any formal policy on the matter of letters to the press, but it is interesting that a recent letter in The Times Higher Education Supplement has suggested that there is a need for a code of practice for higher education as a whole. (12) This is therefore an area in which the University of Bath, and indeed all universities, might do well to issue guidelines. Unfortunately there is a tendency in all universities to avoid discussion of issues which might prove contentious, despite the common acceptance of the argument that it is precisely those issues which most need discussion.

The Comparator University

The Comparator University was selected because in many important respects it differs sharply from the University of Bath: for example, two thirds of its students take arts subjects, the University offers no sandwich courses, and great emphasis is placed on interdisciplinary study. It was hoped that the results obtained from the Comparator University would highlight the results from the University of Bath, as indeed they have done, but it was also hoped that the results would be interesting and useful in themselves. The implications of the survey findings for the Comparator University were not investigated in the same depth as those for the University of Bath. However, the findings were discussed with

senior officers of the Comparator University and some comments are recorded here.

The following officers of the Comparator University were interviewed:

Vice-Chancellor

Registrar

Appointments Officer

Chairman of the Local AUT

President of the Students' Union

The questionnaire findings on the liberal/vocational continuum might be thought to reveal an immediate problem for the Comparator University, in that the employers were noticeably less in favour of liberal courses than are the students or the academic staff; there was also a relatively high level of agreement within the employers' group on this issue; furthermore, only about half as many employers visit the campus of the Comparator University as visit the University of Bath. It might therefore be assumed that the Comparator University is in some difficulty in finding jobs for its graduates. In fact, however, according to the Appointments Officer, the apparently low number of employers visiting the Comparator campus is deceptive: many employers prefer to invite students for interview at their headquarters in London, and the Appointments Service is quite satisfied with its record of finding jobs. Consequently the gap between Comparator employers and academic staff may not be a serious matter: certainly none of those interviewed regarded it as a problem. It is also true that even on the arts side the University offers a significant number of vocational courses such as law and accounting. The views of the students and the academics on this issue appear to be very similar, which is a healthy situation, but both are well removed from Conservative MPs. This may mean that the University will

find itself increasingly out of sympathy with Government policy. The University does wish to respond to the Government's call for a shift to science and technology, and for courses of greater vocational relevance, but the Vice-Chancellor may find it hard to persuade his staff to go very far along this path.

There is less difference between the Comparator students, staff and employers on the broad-based/specialised issue than on the liberal/vocational; the academics' views are in fact identical with the employers', though once again they are separated from the Conservative MPs. It is, perhaps, surprising that the academics were not placed further towards the broad-based end of the continuum; the University's courses certainly seem to be very broad-based by British standards. Interestingly enough, all the MPs in the constituencies surrounding the Comparator University are Conservative, and the University makes sure that they are kept well informed of what is happending on campus by inviting them to lunch at regular intervals; this seems a wise precaution. The Vice-Chancellor in particular considers that broad-based degrees are desirable, given the present employment situation: graduates will need to possess a variety of skills, not the least of which will be adaptability and flexibility. However, the Vice-Chancellor does not anticipate that the intended broadening of the sixth-form curriculum will have much effect on the University's degree courses, which are already markedly more interdisciplinary than at many universities. In political terms, the Comparator University might do well to stay where it is on this issue.

On the question of research, the problem is clearly one of persuading the students that research is as important as the academic staff judge it to be; the employers seem to have accepted the case already. MPs, however, are less convinced, and the benefits of research (particularly pure research) could usefully be emphasised at one of the

Vice-Chancellor's lunches.

There are also worrying gaps between the various groups on the continuum for pure and applied research. The academic staff are almost evenly divided in their attitude, with the employers and MPs favouring a more immediate return on the nation's investment. In its most recent prospectus the Comparator University does in fact stress its commitment to applied research, but left to their own devices the academic staff would appear to be in some danger of drifting away from the kind of activity preferred by the politicians generally. Internally there is unlikely to be serious conflict on this issue; externally there might be, though the employer respondents are not the people who would deal with the University on research and development matters. This is one area in which a well prepared case could have a profound influence on stakeholders' views; however, as in the case of Bath, those who believe in the paramount importance of long-term basic research must consider how to influence MPs on a national scale rather than in a few local constituencies. In practical terms, the Comparator University is attempting to benefit both itself and the community by establishing a Research and Development Centre on campus. If successful this will go some way towards satisfying the political demand for applied research while at the same time providing resources for the basic scientific work which is the concern of many academic staff.

The views of all the groups on the lecturer's teaching role are very similar and again problems seem unlikely to develop. However, it is interesting to note that in both universities the academic staff are marginally more didactic in preference than are the students or the employers.

The same pattern of results appears on the continuum relating to the role of academic staff in relation to society, with academic staff

holding slightly more extreme views than the students or the employers, in both institutions. Comparator academics are even more remote from Conservative MPs in their views on this issue than are the academic staff at Bath. Potentially, therefore, the risk of the Comparator University's name becoming synonymous with that of a controversial figure is that much greater: indeed the University has already had some exposure to this risk through the actions of certain staff in relation to the miners' strike in 1984/85. In such a situation a Vice-Chancellor needs to be very skilful if he is to remain on good terms with his staff on the one hand and his local MPs on the other. The Comparator University seems to be relying on such skills rather than on any overt policy as to what stance employees may or may not adopt on social issues.

The value of the questionnaire

Two points remain to be assessed in this chapter: the value of this questionnaire in particular, and the value of such questionnaires in general as a means of clarifying university goals.

As far as this specific questionnaire is concerned, it has certainly produced results which were not anticipated by the researcher, despite extensive discussions with representatives of the groups involved beforehand and despite lengthy experience of the affairs of one of the two universities. Since the response rate and other related factors give no grounds for doubting that the results are representative of the views of the populations from which the samples were drawn, it is clear that the questionnaire has proved to be of value. It has highlighted a number of attitudes which merited discussion with members of academic staff in the University of Bath; this process has drawn attention to a number of areas in which action taken at this stage might prevent problems

occurring in the future. The questionnaire could provide useful information for other universities which chose to administer it, but it would be advisable to supplement the findings with other data, as has been the case in this chapter.

It was made clear in Chapters Six and Seven that a large amount of research into opinions on goals has been carried out in American universities, but that very few similar surveys have been conducted in this country. The present research confirms the impression that a long and complicated questionnaire on goals (similar to the American IGI) would be quite inappropriate in the British context; recipients simply would not have the patience to complete it. Nevertheless, busy professional people, including MPs, will take the trouble to fill in a short questionnaire on university goals provided it is well designed and professionally presented. Such a questionnaire can provide important insights into the views held by large groups of people; often these insights cannot be obtained by any other practical method. Such evidence is not a substitute for judgement and intuition based on experience: but it may confirm or challenge intuition and it may enable more informed judgements to be made. The questionnaire will have no value if it merely confirms what has already become obvious through the normal political process. But if, as in the present instance, the findings provide forewarning of possible areas of conflict, the value can be considerable. One fact which has been demonstrated in this chapter, and which future researchers should bear in mind, is that two groups with similar means and similar spreads of opinion, as indicated by the standard deviation, may have very different internal 'atmospheres'. One group may be relatively unconcerned about the issue, while in the other group the antagonism between proponents of the extreme points of view may be creating a crisis.

To summarise, it seems that the misgivings about the value of goals

studies which have been expressed by some American academics (13) are justified, in the sense that the era of ponderous, time-consuming instruments which are intended to be applicable to all institutions at all times, has passed. There remains every justification for using, with discretion, instruments which are shorter, which are more specific to the time and place, and which are designed and administered with a healthy awareness of their limitations.

NOTES ON CHAPTER THIRTEEN

1. Moser and Kalton (1979), page 467.
2. Oppenheim (1979), page 3.
3. Entwistle and Percy (1973), page 29.
4. The need to avoid accepting a one-sided view is stressed in texts on researching organisations; see, for example, Shaw (1982), pages 20 and 21.
5. Quoted by Venables (1978), page 166.
6. Venables (1978), page 171.
7. Source: Academic Staff Committee minutes.
8. Venables (1978), page 293.
9. Swinnerton Dyer (1984), page 6.
10. A view apparently shared by the Chairman of the UGC. See Swinnerton-Dyer (1984), page 4.
11. Scruton, Ellis-Jones and O'Keeffe (1985).
12. Martin (1985).
13. See, for example, Fenske (1981), page 177.

CHAPTER FOURTEEN: THE UNIVERSITIES' ENVIRONMENT IN THE MID 1980s - FACTORS AFFECTING GOALS

Previous chapters (notably Chapter Four) have demonstrated that the environment has frequently had a profound effect on British universities: for example, the environment has determined the number of universities, their size and their wealth. Traditionally, however, outside forces have played no direct part in shaping the universities' goals: universities have been regarded as autonomous bodies, well placed to determine for themselves how best to serve society, albeit while taking account of external views. That situation is changing. During the 1970s and '80s there have been unmistakable signs that public confidence in the universities' wisdom, and in their power to respond quickly and appropriately to changing needs, is dwindling: evidence of that change has been provided in Chapters Four and Eight. It appears increasingly likely that in the rest of the twentieth century the environment will wish to determine universities' goals more directly than in the past. This chapter will therefore describe the universities' environment as it exists in the summer of 1985.

In the first six months of 1985 a number of important publications appeared: the Jarratt Report; (1) a letter from the UGC (circular letter 12/85); (2) and a Government Green Paper. (3) In this chapter the implications of each of these documents will be considered in turn. Finally, the trends which are likely to affect university goals in the future will be summarised.

The contents of this chapter are derived partly from a study of the published material which is specifically identified in the sections which follow, and partly from interviews with individuals in positions of authority, such as Members of Parliament and officers of the DES and

UGC. These interviews were semi-structured, as defined in the previous chapter; the questions varied according to the stage of the research at which the interview took place, but usually the interviewer asked for views on the six issues which were covered by the questionnaire. The discussions with MPs and others took place on the understanding that the individuals concerned would not be quoted directly, but the information obtained in the interviews has been given due weight in this chapter and has coloured the conclusions which are stated elsewhere in Part Four. (A list of all those interviewed is provided as Appendix One.)

The Jarratt Report

In April 1984 the CVCP appointed a committee under the chairmanship of Sir Alex Jarratt to report on the efficiency of universities. The Committee's Report was published in March 1985.

The Committee judged that its task was 'to examine whether the management structures and systems of universities were effective in ensuring that decisions are fully informed, that optimum value is obtained from the use of resources, that policy objectives are clear, and that accountabilities are clear and monitored.' (Paragraph 1.2.)

The Committee was evidently not impressed with the management processes of universities, though it did not find evidence of waste on a large scale. 'Even if the universities have a clear idea of what they want to do,' says the Report (thus implying that universities have no clear idea of what they are trying to achieve), 'they will not be able to achieve their aims unless they have the necessary structure.' (Paragraph 2.13.)

Broadly speaking, the Committee recommended that a number of standard (almost elementary) management techniques should be applied to

the university system, at all levels. It was proposed that the Government should provide broad policy guidelines within which the UGC and individual universities can undertake strategic and long-term planning; it was also recommended that the Government should review the role of the UGC. The Report comments that, as far as is known, the Government still accepts the objectives of higher education as stated by the Robbins Committee. Within universities, Councils should assert their responsibilities in governing their institutions, notably by bringing planning, resource allocation and accountability together into one process. (Councils, it should be remembered, normally have lay majorities.) Conflict between Councils and Senates is viewed as creative and beneficial. Vice-Chancellors should act as chief executives; Heads of Departments should have clear duties and responsibilities; and arrangements should be made for staff development and appraisal. Thus the Jarratt Report calls for goals to be considered at a national level as well as within institutions.

The Report considered the planning processes of six universities in detail and concluded that university aims and objectives are defined only in very broad terms. No evidence was found of a thorough examination of options and the means of achieving objectives; the lack of performance indicators was viewed as a major omission. To rectify these errors the Report recommended that each university be required to prepare a forward plan, every two or three years, with clear statements of its aims. Many universities, it was argued, need to make more positive efforts to define what they are trying to achieve in broadly measurable terms.

It is in many ways pathetic that in 1985 universities should have to be urged to take these steps, and the fact that it should be necessary is revealing of the ways in which universities have previously operated. Some opponents of Jarratt have argued that the 'industry' model of

management is not appropriate to universities, and that in any case the record of British industry provides no recommendation for the adoption of its management methods. (4) But these are not convincing arguments: the fact is that some British companies have been very successful, and that none of them has become successful without adopting practices such as those recommended by Jarratt. In short, the Jarratt Report was long overdue.

UGC circular letter 12/85

On 9 May 1985 the Chairman of the UGC wrote to all Vice-Chancellors about planning for the late 1980s. The Chairman warned universities that they should prepare for a decline in the UGC's recurrent grant of at least 2 per cent per annum in real terms over the next few years. The Government's wish to see a higher proportion of students studying subjects of 'vocational relevance' was noted, together with the Secretary of State's expectation that there would be the greatest possible shift to science and technology within existing resources.

The letter then gave details of the UGC's intention to be more selective in its support for research. The Committee intends to change the method of distribution of its funding for research in such a way as to support areas of special strength or promise. In addition to giving some universities larger grants than others, the UGC will encourage more selective distribution within institutions.

In order to enable the UGC to make these decisions on resource allocation, circular letter 12/85 calls for large volumes of information. Perhaps the most interesting item, from the point of view of the study of goals, is a request for a short statement of each university's overall objectives for the planning period. The word 'objectives' in this context

seems to mean the university's intentions in terms of subject balance and research priorities. It is suggested that universities should consider the rationalisation of departments, both individually and in co-operation. The Committee may be willing to make grants to help to implement arrangements between universities and it warns that it may need to take the initiative itself in order to protect or to provide for the national need. Finally the letter warns universities that it will be necessary to develop and to use indicators of performance for teaching, research and the provision of academic services.

Circular letter 12/85 is therefore a half-hearted attempt, couched in less than explicit terms, to require universities to clarify their goals, particularly in respect of research. It gives warning that the external pressures for the evaluation of performance are now so great that they can no longer be ignored.

The Green Paper of 1985

In May 1985 the Government published a Green Paper entitled The development of higher education into the 1990s. The paper was intended to convey the Government's thinking on higher education; comments on the issues raised in the paper were invited.

The first section of the paper identifies the Government's main concerns. Economic performance of the United Kingdom since 1945 is described as disappointing; higher education must therefore contribute more effectively to the economy, in particular by producing more scientists, engineers and technologists. The shortage of qualified manpower can only be made good, it is argued, if higher education is flexible enough to respond quickly to new needs. Institutions must avoid 'anti-business snobbery', must foster positive attitudes to work, and must

develop their links with industry and commerce. The provision of cultural and recreational facilities for the local community is also considered valuable.

The Green Paper stresses the need to protect free speech; it endorses the introduction of a more selective research policy. A decline in student numbers of about 14 per cent is anticipated in the 1990s and it is 'not improbable that some institutions of higher education will need to be closed or merged at some point during the next ten years.' (Paragraph 1.13.) The Government has asked the advisory bodies to consider the optimum distribution of students between sectors in the medium and longer terms.

The Jarratt Report's assumption that the Government accepts the aims of higher education as defined by Robbins is confirmed in paragraph 2.1. (This acceptance can either be construed as a tribute to the powers of analysis of Robbins and his colleagues or as an indication of the lack of any serious attention being given to the matter in the intervening years.) The Government's wish to maintain a distinct emphasis on technological and directly vocational courses is also confirmed, with a passing note that the arts are important too; the proportion of arts places in higher education is, however, expected to shrink. It is suggested that the UGC and the NAB should co-operate to achieve a closer balance between supply and demand in such areas as architecture and pharmacy.

The joint UGC and NAB reformulation of the Robbins formula on access, to the effect that 'courses of higher education should be available to all those who can benefit from them and who wish to do so', is accepted with caveats. It is argued that so long as taxpayers substantially finance higher education, the benefits provided by the system have to justify its cost. (Paragraph 3.2.)

The Green Paper includes a section on education throughout life.

Continuing education is accepted as one of the principal parts of higher education's work, though the arguments for taxpayer support are not considered as strong as in the case of initial higher education; employers and students are expected to bear the costs in most instances.

On research, the Government's aim is for higher education to continue its contribution to the nation's research on about the present scale, with the universities retaining their chief role for basic or fundamental research. However, the view that all academic staff must engage in research is rejected, and it is stated that there will definitely be greater concentration and selectivity: some departments or even whole universities will lose research funding. Links with industry and commerce on the research side are strongly encouraged; the Government is anxious to translate academic expertise into products.

The Green Paper notes that within universities the broadening of the undergraduate curriculum which was recommended by the Robbins Committee has been constrained by the rapid growth in knowledge in many subjects. The paper gives encouragement to the broadening process, but only in terms which appear lukewarm.

Like the Jarratt Report, the Green Paper considers the management process in higher education. It recommends that specific objectives should be established, both for whole institutions and for their separate faculties and departments. Stress is placed not only on the efficient use of resources but on the effectiveness of the results achieved. The need for reliable measures of performance is highlighted yet again and the topic is discussed in detail in an annex. The annex states that higher education has three main outputs: highly qualified manpower, research, and other social benefits; it claims that significant progress in developing performance measures has been limited to the first of these, and several tables are supplied showing recurrent costs per student by discipline, non-

completion rates, 'A' level scores, employment rates, etc.

The Green Paper states that 'as far as possible' the changes which the Government wishes to see brought about will be left to the responsible institutions. The Government will also initiate a review of the role, structure and staffing of the UGC, as recommended by Jarratt. The Government sees no practical scope for a national planning body for higher education which would 'overarch' the UGC, the NAB and the associated bodies for Northern Ireland, Wales and Scotland; such a body had been recommended by the Leverhulme Inquiry. Instead, the Government accepts its own responsibilities for central policy.

A summary of the trends affecting British universities

The three publications discussed in this chapter highlight a number of interesting trends which will have important consequences for British universities. Taken together, the documents constitute an unmistakable indictment of the ways in which universities have hitherto handled their affairs. It is true that there is still considerable respect for universities: public criticism is sometimes surprisingly apologetic in tone, particularly if it comes from men who were never undergraduates themselves. But there is wide disquiet, particularly in Government, about the performance of universities. The Government is clearly going to require universities to become more responsive to what it perceives as national needs, and if the universities fail to respond it can hardly be doubted that the Government will seek to achieve its ends by other means.

The environment now places massive emphasis on vocationalism, on science and technology, on applied research and on 'relevance' in all things. The Government is clearly influenced in its thinking by reports such as Competence and Competition. (5) That report, published in 1984,

compared the approach to education and training in the United Kingdom with that of three other major nations - West Germany, the United States and Japan. The report drew attention to some disturbing facts: one in five American workers has a degree, compared with a British figure of one in fourteen; the United Kingdom produces 15,000 engineering graduates a year, while the Japanese produce between 60,000 and 70,000. The growth of unemployment must also have influenced the Government's thinking about the purposes of higher education (and it has no doubt influenced the attitudes of many individual students).

The consensus of opinion in the environment appears to be that the autonomous universities, controlled by academics, have fallen short of what is required by the nation. In response, it is proposed that Councils, rather than Senates, and Councils with lay majorities at that, should be the governing bodies of universities. Autonomy will be permitted to continue, and variety in the system is to be encouraged; but for universities which fail to respond as the Government wishes, tne warnings are obvious.

The era of growth which began in 1945 has clearly ended. Resources provided by the taxpayer will be reduced in real terms; to compensate, universities will be allowed to keep what they are able to earn from other sources. Student numbers are likely to fall, mainly because the demographic trend is so strongly downwards that the possible influx of students from groups other than the main cohort of eighteen-year-olds will not compensate. As a result of these reductions in resources and students, some universities are likely to close.

The universities are undoubtedly going to be required to improve their planning techniques. The Jarratt Report, the UGC circular letter 12/85 and the Green Paper all make the same points: they draw attention to the lack of clear aims and the reluctance to measure performance.

All three documents argue that the task of university management is to establish objectives, preferably in measurable terms, and to examine periodically the extent to which they have been achieved.

It is interesting in this context to note the influence which the Leverhulme Inquiry has had. When the final report of the Leverhulme seminars appeared, (6) it seemed likely that the influence of the Inquiry would be small; but in fact many of the key recommendations have found their way into the documents considered in this chapter. Leverhulme favoured wider access to higher education, on the grounds of both justice and economic efficiency: the Government accepts the point, though evidently on the latter grounds rather than the former. Leverhulme argued for a reduction in undue specialisation and a reform of the structure of courses: the Green Paper states that broader courses have a significant part to play in higher education, and the Government is prepared to consider two-year degree courses on an experimental basis.

The Jarratt Report echoes and endorses the Leverhulme Inquiry on a number of points of detail: greater lay involvement, annual appraisals, and the establishment in each university of a strategic planning group with joint lay and academic membership. Like Leverhulme, Jarratt emphasises the need for a clear understanding of the aims of particular activities, both in teaching and research. The two publications are in complete agreement in arguing that institutions should provide a strategic plan and mission statements for each department; resources should be allocated accordingly. Both agree also that present arrangements for national policy setting are unsatisfactory: Leverhulme argues for a higher education policy studies centre, Jarratt for a review of the UGC.

The UGC's circular letter 12/85 concentrates heavily on research, which was a major concern of Leverhulme. The letter puts into effect the Leverhulme proposal that each university should have a research

policy which takes account of national needs and which identifies the balance of effort devoted to different types of research.

Perhaps the only major point made by the Leverhulme Inquiry which has not been endorsed in 1985 is the emphasis on diversity through institutional autonomy. Diversity will be accepted by the Government only in so far as national needs are diverse; and of institutional autonomy little or nothing is said. The main conclusion of this chapter must therefore be that the universities are considered by their principal source of funding to have failed in many important respects. They are now being invited to examine the environment and to state clearly how they intend to respond to their stakeholders' needs; it seems highly probable that a response which is judged to be unsatisfactory will be met with an enforced reduction in autonomy.

The process of formulating a response to stakeholders' needs must inevitably involve an assessment of goals. The next two chapters will therefore consider the processes by which goals may be clarified - first, by organisations (Chapter Fifteen), and secondly by individuals (Chapter Sixteen).

NOTES ON CHAPTER FOURTEEN

1. Committee of Vice-Chancellors and Principals (1985).
2. Swinnerton-Dyer (1985).
3. Cmnd. 9524 (1985).
4. See various letters to The Times, April 1985.
5. Institute of Manpower Studies (1985).
6. See the Leverhulme Report, final volume (Excellence in diversity).

CHAPTER FIFTEEN: PROCEDURES FOR THE CLARIFICATION OF UNIVERSITY GOALS BY ORGANISATIONS

The Jarratt Report recommends that the UGC should agree with each university a programme for implementing the recommendations in the Report and that it should take the progress of implementation into account when allocating grants. It is clear that British universities will therefore be forced to review their internal arrangements for planning, resource allocation and accountability.

Planning is defined by the Jarratt Report as an activity which involves the setting of objectives for the university as a whole and for its constituent parts; accountability involves an assessment of the extent to which the objectives have been achieved, together with a check on the efficient use of resources. The aims of this chapter are therefore (i) to review the two principal alternative procedures for planning, and (ii) to describe the nature of the inevitable British compromise in planning. An understanding of the ways in which society and institutions determine goals is necessary before an individual can analyse the goals of a specific institution as part of the process of deciding what the goals of a university should be.

The descriptions of the first two planning models in this chapter are drawn from sources referred to in earlier parts of the thesis, particularly in Chapters Three and Six. The discussion of the British system of university planning is based upon the contents of Parts One and Two as a whole, together with Chapter Fourteen.

The autonomous model

The first planning procedure to be described is one which has its

origins deep in the past, in the concept of a university as a self-governing community. The system is found in its purest form in the United States, but its advocates are found in many democracies. The model is known by a number of different names, such as the administrative sciences or systems analysis or rationalist model. Since it is essentially a form of planning which is participative, and appropriate to institutions which are self-governing, it will be referred to here, at the risk of creating yet more jargon, as the autonomous model.

The autonomous planning model consists of the following four stages:

1. To consider and to decide on the goals of the institution.
2. To consider and to decide on the means of achieving those goals.
3. To carry out the functions which are necessary in order to achieve the goals.
4. To evaluate the extent to which the goals have been achieved and to review the whole process.

Advocates of this planning model argue that the decisions taken in stage one should be conscious, deliberate and public, rather than intuitive and private. They must take into account a variety of views: those of the principal stakeholders at least, and not just the views of an elite. Ideally the goals should be expressed in measurable terms, but it is recognised that not everything can be quantified precisely: it is sufficient that independent observers should be able to assess whether the goal has been achieved or not.

Stage two involves consideration of the alternative means which are available to achieve the goals, together with an examination of the costs and benefits of each. It may be necessary to modify some of the goals in the light of a realistic assessment of what can be achieved with finite resources. Once the review is complete, the available resources are allocated.

The third stage, that of carrying out the necessary work, is the most crucial phase of all, and one to which most of a university's time, attention and resources are allocated.

The final stage calls for an evaluation of the extent to which the selected goals have been achieved and for a review of efficiency in the use of resources. Those matters which can easily be quantified can also be evaluated relatively easily; in the case of goals which cannot easily be quantified the assessment must be more subjective. As a result of the evaluation process, goals may be redefined and the means used to achieve them may be modified. The whole process is therefore circular, in that evaluation (or accountability) provides feedback which modifies the goals established in stage one.

The whole cycle of stages is repeated on a regular basis, though perhaps not all stages need to be repeated at the same interval. For example, goals could be determined every three years, with an annual evaluation of achievement.

There are, of course, numerous criticisms which can be made of the practicality of the autonomous approach to the planning of universities. For example, stage one appears to assume that agreement on goals within a faculty or a university can be achieved as a result of open, rational discussion. In practice that may not be so: there may be such serious dissension within an institution, or a unit, that agreement on anything but the most anodyne generalisation is impossible. Similarly, at the other end of the process, it is undoubtedly very difficult to evaluate research, for example. How can a paper in Nature be compared with a book review in the local evening paper? Both are 'publications', but is one ten times more important than the other, or fifty times? Nevertheless, the autonomous planning model offers certain advantages: for example, by being conducted openly it can satisfy the external demand for a

justification of the use of scarce resources; it can also satisfy the internal demand for cases to be heard and for justice to be seen to be done.

The centralised model

The centralised planning model can safely claim to be just as rational as the autonomous or decentralised model: but while the autonomous model may be said to operate from the bottom up, the centralised model operates from the top down. It is closely linked with the concept of manpower planning which was discussed in Chapter Three.

The centralised planning model proceeds through much the same stages as the autonomous model, except that in this case the goals are national, not institutional. The first stage involves the selection of specified goals, which are often economic in character. For example, it is common in the centrally controlled economies of eastern Europe to set up a national plan, often on a five-year basis. This plan will set targets for the output of goods and services. The targets are normally of a fairly basic nature, such as the production of a certain number of houses or lorries; however, there is no reason in principle why the plan should not specify less material goals. For example, one target could be that each town with a population of 100,000 should have a theatre, or that a national ballet company should be established.

It is worth noting that the goals which are selected in the centralised planning model are just as much the product of a series of value judgements as are those selected in the autonomous model. In both cases information from elsewhere is taken into account: in the autonomous system a wise university will note the demand from employers for, say, biologists; and even in the most ruthlessly centralised economies

the views of potential students carry some weight.

Once the goals have been established, the activities to be undertaken by universities can be deduced. The main activity will normally be to produce the trained personnel to act as teachers, engineers or whatever. The universities will be instructed accordingly, sometimes in extreme detail, as in the USSR. Changes in the nation's circumstances, such an increased demand for specialists from industry, will require continual adjustments to be made to the plan; and if the system is to work well, speed and flexibility of response will be required.

Stages three and four of the process are also similar to those in the autonomous model: stage three involves carrying out the functions within the universities concerned; stage four is to evaluate performance and to make any necessary adjustments to the process as a whole. In the centralised model, however, evaluation will be a function of the nation's planning authority rather than of each autonomous institution.

The shortcomings of the decentralised model were indicated in the previous section, and the centralised model also runs into difficulties in practice. Not even in the most authoritarian political system does every individual obey every order, and therefore perfect efficiency and effectiveness are never achieved. It is also doubtful whether any state has at present the capacity to collect the necessary data and to adjust its plans sufficiently fast to avoid the kind of mismatches which are well documented in the field of manpower planning.

The British compromise in university planning

It is convenient to conceive of the British system of planning for higher education as following the same four stages as were found in the autonomous and centralised planning models. To recapitulate, the stages

are:

1. The determination of goals.
2. Deciding how to achieve the goals; resource allocation.
3. Carrying out the necessary functions.
4. Evaluation.

The British system is a compromise between the two pure forms of planning. Stages one, two and four take place both at the national level and within institutions; stages one and two also overlap. Not surprisingly, the result is often unsatisfactory.

Burton R. Clark has observed that centralised systems of planning for higher education tend to stay centralised, while decentralised systems tend to stay decentralised. (1) He predicts that in the foreseeable future the British system, which he characterises as 'mildly decentralised', will certainly not become even as centralised as the French model. Nevertheless, earlier chapters of this thesis have demonstrated that the tendency since 1945 has been for the British universities to become steadily more influenced by central authority. There is no indication that this process of evolution from a 'bottom-up' system to a 'top-down' form of planning is likely to be reversed. On the contrary, nearly all the external pressures are for the process to continue: the Leverhulme Inquiry chose to defend autonomy, (2) but the previous chapter drew attention to the strong pressure from the Government for the universities to respond to specified needs.

The framework within which British planning for higher education takes place is pyramidal. At the top of the pyramid stand the Government and the DES. On the next level down come the UGC and the NAB; below them are the institutions. The flow of information runs both upwards and downwards. The Government has accepted its responsibility for creating a policy framework (though both the

Government and the DES have been roundly criticised for failing to meet this responsibility). (3) The Government and the DES have to take into account the views of a large number of bodies: the UGC, the NAB, the CVCP, the universities, the polytechnics, parents, students and taxpayers. The Government also has to take into account the demands for expenditure on other activities: it is only at the top that a judgement can be made on national priorities, such as the balance between expenditure on universities and hospitals.

The Government, then, decides in broad terms what it wants the universities to achieve and how much money (in total) they are to be given to carry out their tasks; in recent years the Government has chosen to give steadily more detailed indications of its wishes but the policy statements (goals) are still very loosely phrased (defined). The Green Paper of 1985 constitutes the clearest indication of the Government's present thinking.

The next stage is for the UGC to divide the financial grants in the best way possible, in the light of its own judgement of the national need; this the UGC is comparatively well placed to do, because its various subcommittees having detailed knowledge of the strengths and weaknesses of each institution. The grants to universities are often accompanied by comments about the activities which the UGC wishes to see developed or reduced. Traditionally the UGC does not give the universities instructions, but in recent years the 'suggestions' have become more and more difficult to ignore. By one means or another the UGC or the DES contrive to control student numbers in certain disciplines such as education, medicine and pharmacy.

Finally, as far as goal-setting and resource allocation are concerned, the universities have to make their internal, autonomous decisions on which activities to develop, which to close down and which to continue on

level funding. They are expected and allowed to use their own judgement as to what society needs and how best to provide it. In practice the universities' room for manoeuvre has become increasingly constrained. It is accepted throughout the system that to set up a new department without UGC approval is politically impossible. There is also massive inertia within the institutions: it is very difficult to persuade a Senate to terminate one activity in order to finance another.

Stages one and two in the British system of planning are therefore a mixture of the centralised and the autonomous procedures. Stage three - carrying out the functions of a university - is largely an internal matter, but it is worth noting that in some instances, such as the provision of sandwich courses, the co-operation of other bodies is needed.

Stage four, evaluation, has by common consent been largely neglected, but the previous chapter demonstrated that performance evaluation is now inescapable. As in the past, it will take place both internally and externally, but in future the results will be more widely available than hitherto. Performance indicators are relatively easy to design and to implement, and as a result it seems likely that British universities will soon be able to provide a host of sophisticated analyses of the extent to which an exceptionally ill-defined series of goals have been achieved.

Like all compromises the British sytem of planning for universities has certain weaknesses. The most obvious shortcoming is that the goals of the system are far from clear. In the 1980s, the Government, the DES and the UGC between them have begun to articulate goals to a far greater extent than in previous decades; but they still seek to achieve their aims through hints, suggestions and expressed hopes rather than by requiring universities to meet quantified targets.

Within the universities the arrangements for clarifying goals are

equally unsatisfactory. As this thesis has demonstrated repeatedly, discussion of goals is notable chiefly by its absence. It is of course true that the content of every degree course is debated periodically, often at length and with passion; it is also true that such debates involve an explicit or implicit consideration of the objectives of the course. Nevertheless, consideration of the overall purpose of universities is rare, and is seldom initiated within institutions. What Senates and Councils tend to debate is not goals but the minutiae of course content and resource allocation.

Suggestions for the improvement of the British system of planning for higher education

There are a number of ways in which the British system of university planning could be improved. The following suggestions are made on the assumption that the system will remain 'mildly decentralised', and that what is required is a rationalised mixture of 'top-down' and 'bottom-up' planning.

First, the Government and the DES should be bolder in providing a policy framework. This does not involve adopting a five-year horizon on the eastern European pattern, but it does involve setting more specific goals than at present. It almost goes without saying that the Government must review higher education as a whole, universities and public-sector institutions together. The Leverhulme Inquiry proposed that to assist this process a policy studies centre should be established. (4) This might be valuable in the long run, but most of the options are already clear, and what is needed is the will to make unambiguous choices. The Leverhulme Inquiry also favoured the creation of an 'overarching body' (5) to co-ordinate the UGC and the NAB; this again seems superfluous if the

Government is serious about accepting its responsibility for policy, and the proposal has in any case been rejected in the Green Paper. (Paragraph 8.3.)

Secondly, the universities must be persuaded (or, more likely, obliged) to identify their precise choice of goals. There have already been a number of strong hints that this might come about. As mentioned earlier in the thesis, the House of Commons Select Committee and the Leverhulme Inquiry have both recommended the adoption of mission statements, and the Jarratt Report is also critical of the lack of clarity on goals.

Manpower needs are by no means the whole story when it comes to setting goals, but, from the Government's point of view, manpower needs are currently very important. In recent years several commentators have pointed out that market forces alone are inadequate in ensuring that the manpower needs of a successful economy are met. (6) This does not mean, however, that the necessary improvement can only be effected by moving to a highly centralised system of planning. On the contrary, the necessary improvements can probably be brought about by focusing attention on a few specialist disciplines where rapid increases (or decreases) in the numbers of graduates are required. (7) To achieve the desired result it will be necessary to arrange for better information to be made available to students, so that they will choose their degree courses wisely; incentives may also be required to encourage entrants. (8) The incentives are not in themselves difficult to devise or expensive to offer (bearing in mind the cost of <u>not</u> meeting manpower needs); but once again, it requires an act of political will to offer them. Thus the 'problem' of manpower shortages could be alleviated if not solved by adapting the existing system.

Within the universities some means must be found of overcoming the

awesome resistance to change. The Jarratt Report's solution is for university Councils to flex their muscles through the more active intervention of lay members; the present Chairman of the UGC and Lord Robbins had earlier proposed the same solution. (9) However, it is by no means clear that it will be possible to recruit sufficient lay members with the necessary experience, interest and, above all, time, to achieve this result. Nor is it clear that Councils will be able to impose their will: academic tenure creates problems which are not found in most businesses. The real solution is for the academic staff to come to terms with their existing responsibilities. There are reasons for supposing that this need not be as difficult a task as some commentators seem to suppose - Dr. Johnson's dictum about the prospect of being hanged should be borne in mind - but it is undeniably a major test of leadership.

This chapter has described a number of ways in which the goals of universities can be clarified: (i) through a system of autonomous institutions, using a decentralised model; (ii) through a centralised system, with goals being determined outside the institutions; and (iii) through the existing British compromise in university planning or an improved version of it. Those who are interested in investigating or implementing the third option will need a means of establishing what the situation with regard to goals is, at any given time, both in the British higher education system as a whole and in a specific institution. The next chapter therefore provides the means by which that can be achieved.

NOTES ON CHAPTER FIFTEEN

1. Clark (1982), page 195.
2. Leverhulme Report, volume 9 (The structure and governance of higher education), page 3. See also the final report (Excellence in diversity), page 2.
3. The Jarratt Report is critical of the Government in this respect. The Times Higher Education Supplement has criticised the DES; see Times Higher Education Supplement (1985).
4. Leverhulme Report, volume 9 (The structure and governance of higher education), page 208.
5. Ibid., page 4.
6. See, for example, Pearson (1985).
7. Ibid., page 195.
8. For useful discussions of this point see Peston (1981) and Lindley (1981).
9. See Swinnerton-Dyer (1984), page 22 and Robbins (1980) page 81.

CHAPTER SIXTEEN: A PROCEDURE FOR THE CLARIFICATION OF UNIVERSITY GOALS BY INDIVIDUALS

The planning models outlined in the previous chapter are essentially procedures for organisations rather than for individuals. However, organisations are made up of a mass of individuals, and the choice of university goals is an area in which few individuals are at present equipped to make informed decisions. Consequently the aim of the present chapter is to provide the reader with a method of inquiry by means of which he can investigate the attitude towards goals in the environment of British universities, and the situation within any particular university, at any given time. This method of inquiry consists of a series of questions. Once the answers to these questions have been obtained, the reader will have a picture of the explicit and implicit goals of both the environment and the specific university which interests him. The reader can then decide, preferably in the light of the material contained in earlier parts of this thesis, whether or not he personally is satisfied with the goals which are being pursued either by the university system as a whole or by one university in particular. If he is not satisfied with the existing goals, the reader will have to consider how to bring about change. The implementation of change is outside the scope of this thesis, but a useful starting point would be to study the work of Enderud. (1)

The chapter is divided into two sections: the first section lists questions relating to the environment and the second lists those relating to the internal affairs of a university. It should be noted that the questions relate to goals only, and not to such matters as cost-effectiveness or teaching methods. The questions originate from the material contained in Parts One, Two and Three of the thesis.

In order to obtain the answers to the questions listed, it will be

necessary to locate published sources of information and to conduct a number of interviews: ideally those interviewed should be senior academics and officers of a specific university, together with well informed representatives of national organisations such as the UGC, the DES and the political parties. These tasks will involve a considerable commitment of time and other resources, and some comments about the practical problems involved in applying the method of inquiry are made at the end of the next chapter.

Questions relating to the goals of the environment

1. What goals has the present Government set for higher education in general and for universities in particular? Has the Government set manpower-planning targets in any specific disciplines? (Likely sources of information: Green Papers; White Papers; public pronouncements by the Secretary of State.)
2. What means is the Government using for imposing its chosen goals? (Possible means: legislation; financial incentives or 'fines'; exhortation.) Is the Government in the process of reducing or expanding the provision of higher education through universities? Is the Government seeking to weaken university autonomy?
3. What goals are currently being emphasised by the UGC? Are they the same as those favoured by the Government, or is there conflict?
4. What means is the UGC using to impose its goals? In practice, how far can universities afford to ignore the UGC's hopes and expectations?

5. What indicators of performance are currently being used or recommended by the Government and/or the UGC? Do these indicators demonstrate the existence of unconscious or implicit goals other than those overtly recognised?
6. On a national basis, what are the views of the principal university stakeholders? (The stakeholders were listed in Chapter Eight.)

Questions relating to the goals of a specific university

The British system of university governance is decentralised - whether 'highly' or 'mildly' decentralised is a matter of judgement. In any case, individual universities still retain a significant element of autonomy, which is jealously guarded; consequently the questions which must be asked in order to identify the goals of any specific university must of necessity be more detailed than those relating to the environment.

The previous chapter established that planning models can be viewed as having four stages, the process being circular in that evaluation (the fourth stage) feeds back into the first stage and may lead to a revision of the goals. The questions which need to be asked are therefore set out in four groups, of which the first and the last are the most crucial.

(i) Stage one: choosing goals

1. Has the university produced a mission statement? Has the possibility been seriously considered and rejected? If so, why? Are the reasons convincing?

2. Has the university, or any group within it, ever considered drawing up or referring to a catalogue of possible goals such as that provided in Chapter Nine?
3. What methods does the University have for testing the views of its stakeholders on a local, rather than a national basis?
4. Can the departments or faculties produce clear statements, on demand, of what they are trying to achieve through their degree courses or other activities? If not, why not?
5. If there are no written goal statements available, at either university or departmental level, what do the senior officers of the university or the departments say they are trying to achieve if pressed to answer? (Preferably, this question should be asked in relation to every degree course.) Also, what are the implied or operative goals? This is by no means easy to discern, but we can ask, for example:

   What courses are being offered by the university?

   What research is it undertaking?

   What facilities, services and activities does it provide for the staff, students and the local community?

   What major academic changes has the university made in the past few years? What was the intention behind those changes? Were they made in response to external or internal pressure?
6. What is the university's attitude - or what are the departments' attitudes - to major issues covered by the questionnaire described in this thesis?

Are the degree courses liberal or vocational, broad-based or specialised? And in either case, why?

What is the attitude towards research? Is every member of staff expected to undertake it? To what extent is pure or applied research preferred? Why?

Is there any overt policy on teaching style, or on academics making public statements on controversial issues? What is the justification for the policy? If there is no overt policy on these issues, what are the 'unwritten laws'?

7. What level of agreement is there, within the university or within each department, on the explicit or implicit goals? Is the university in conflict with any major stakeholder group on any major issue?

   What individual or group effectively makes the decisions about the university's goals or about activities which imply goals? (The actual decision-maker is not necessarily the same as the theoretical decision-maker.) Is Senate or Council dominant when it comes to determining goals or activities which imply goals?

(ii) Stage two: choice of methods and resource allocation

In the first stage of planning, goals are identified; in the second stage the most efficient and effective means of achieving each goal is selected. The second stage is therefore not critical in any analysis of goals, but a consideration of the procedures followed by a university in the second stage will certainly shed further light on the operative or implicit goals of the institution. The questions which follow are therefore

intended to facilitate not a complete analysis of the second stage of planning but an analysis which will provide information on the intended outcomes of its activities.

1. In recent years, which activities have been given more resources?
2. Which activities have had resources taken away?

(iii) Stage three: carrying out the necessary functions

The third stage of the planning process involves performing the functions which are necessary to achieve the various goals; this stage constitutes much of the university's day-to-day work. An analysis of what the university is actually doing, in terms of courses offered, research undertaken etc., has already been suggested in the questions relating to stage one.

(iv) Stage four: evaluation (accountability)

The following questions apply:

1. If there are explicit goals, what information is being gathered about the extent to which each goal is being achieved?
2. If there are no explicit goals, what performance indicators are being used by the university? What do they tell us about the implicit goals of the institution?
3. Specifically, what assessment is the university carrying out of the effectiveness of its teaching? For example, how satisfied are the students, when graduating, that their needs have been met? What is their opinion of the

education they received five years after graduation, or ten? Is the university collecting this information? If not, why not?

4. How satisfied are employers with the graduates they recruit from this university? What proportion of graduates are unemployed?
5. Does the university measure the changes which have occurred in the students during their years at the university? If not, why not?
6. What performance indicators are used to monitor research?
7. How does the university evaluate the performance of its staff (in all categories)? What arrangements does the university have for staff development? Are the arrangements adequate?

The lists of questions given above are clearly not exhaustive, and asking any one of them is likely to generate a number of supplementary questions.

Consideration of the results of the inquiry

At the end of the procedure the inquirer will be faced with a mass of information. It may be helpful to analyse this information further by producing a draft mission statement for the university as a whole (if such a document does not exist already), or to modify an existing mission statement in the light of what has been learnt about operative goals. Such a document could be further distilled to provide goal statements for individual departments or degree courses.

Finally, the inquirer has to ask himself three further questions:

1. How satisfied are you, the questioner, with the clarity of the goals of the university or of the departments within it?
2. How satisfied are you that they are the right goals?
3. If you are not satisfied, on either count, what are you going to do about it?

The following chapter contains the results of an analysis of the goals of the University of Bath, obtained by applying the procedure described in this chapter. (The literature search revealed no other procedure, either British or American, which could have been used as an alternative means of analysis.)

NOTES ON CHAPTER SIXTEEN

1. See Enderud (1980). The Leverhulme Report volume 3 (Agenda for institutional change in higher education) is also relevant, particularly the paper by John L. Davies and Anthony W. Morgan.

CHAPTER SEVENTEEN: AN ANALYSIS OF THE GOALS OF THE UNIVERSITY OF BATH

This chapter provides an analysis of the explicit and implicit goals of the University of Bath as revealed by the method of inquiry described in the previous chapter. The analysis was undertaken for two reasons: first, to test the practicality and effectiveness of the method of inquiry, and secondly to provide information which would be valuable in itself.

The chapter is divided into four sections. The first three sections relate to the method of inquiry: information is provided first on the University of Bath's environment in mid 1985, and secondly on the University itself; the third section draws conclusions from the results of the inquiry. In the final section comments are made on the practicality and effectiveness of the method of inquiry itself.

The information contained in this chapter was obtained from papers circulated within the University of Bath and from interviews with members of the University. In addition, a main source of insights has been the researcher's 13 years of service in the University administration, 4 of them in the capacity of minute secretary of Senate, Council, Court and other major committees.

Answers to questions relating to the goals of the environment

The method of inquiry lists 6 principal questions which are intended to shed light on the goals for the university system which are preferred by the system's environment at any given time. The answers to questions 1 to 5 (as of mid 1985) were provided in Chapter Fourteen or earlier in the thesis; the information will not be repeated here. Similarly, the views of the principal university stakeholders (in the early 1980s), which

are called for by question 6, were described at length in Chapter Eight.

Answers to questions relating to the goals of the University of Bath

The numbers in sections (i) to (iv) below refer to the numbers of the questions in the corresponding sections in the previous chapter.

(i) Stage one: choosing goals

1. The University of Bath has not produced a mission statement and has never seriously considered producing one. Clause 2 of the University's Charter states that 'The objects of the University shall be to advance learning and knowledge by teaching and research, particularly in science and technology, and in close association with industry and commerce'. There is a further reference to industry in clause 3(i) of the Charter, which states that the University shall have power to undertake 'research' in the pure and applied sciences and technologies... in co-operation with industry and other relevant bodies.' (1) It is sometimes assumed (for instance by lay members of Council) that these brief statements constitute a sufficient description of the University's mission. However, even if the statements are accepted as adequate, Chapter Thirteen has demonstrated that, since the Charter was drawn up, significant changes have occurred in the qualifications, experience and attitude of members of the academic staff: it can no longer be safely assumed that the typical lecturer will be in favour of close liaison with industry, either for teaching or research

purposes. Thus the University of Bath has only the sketchiest of formal goals, and any attempt to develop a future mission statement might have to accommodate views which are different in emphasis from those in the Charter.

2. It has not been possible to find evidence that any group within the University has drawn up or consulted a catalogue of possible goals. Nevertheless, there has been, and continues to be, almost continuous debate about the content of degree courses. Consideration of goals is in a sense implicit and inescapable in such discussions, but there is a noticeable tendency for debate to concentrate on means rather than on fundamental questions of purpose. This is certainly true when changes in a syllabus are considered by Senate: questions are likely to be asked on the level of marks required to pass, or on the amount of lecturing involved, rather than on the underlying aims of the course.

3. The University has no systematic method of testing the views of its local stakeholders: unlike the Comparator University, Bath does not hold regular meetings with the local MPs, for example. However, the sandwich-course system does ensure that contact with employers is closer than at many universities.

4. The Schools differ markedly in the extent to which they have clarified the objectives of their degree courses. One School (Engineering) had a Head of School in the late 1960s who was very interested in the work of Mager and others, and as a result the School's syllabuses are all expresssed in terms of specific objectives. Other Schools can produce only the briefest of official statements about what they are

trying to achieve, though individual members of staff are often more forthcoming in conversation. Those Schools which have not produced detailed statements seem never to have considered the idea, rather than to have considered it and rejected it.

5. Chapter Thirteen gives details of the comments made by representatives of each School in relation to certain key aspects of teaching and research; those comments provide considerable information on the implied or operative goals of the University. It is evident that in at least one School there is bitter conflict over the goals of both teaching and research. It is possible that such conflicts will break out in other Schools. The most likely subjects of contention are the vocational nature of courses, particularly the sandwich element, and applied research. At present, most courses are still vocational in character, but the newer academic staff, including some influential professors, are less enthusiastic about such courses than are the older ex-CAT men. Similarly, applied research is considered barely worthy of the name of research by some of the more able academics. It is rumoured that the UGC will endorse this view by giving greater weight to Research Council income in its selective support of research than to income from industrial sources. (2)

There are currently 14 Schools in the University. Divided into academic Areas, they are as follows:

Arts and Social Sciences Area

Education

Humanities and Social Sciences

Management

Modern Languages

Science Area

Biological Sciences

Chemistry

Materials Science

Mathematics

Pharmacy and Pharmacology

Physics

Technology Area

Architecture and Building Engineering

Chemical Engineering

Electrical Engineering

Engineering

Each School normally offers a variety of courses within its discipline. For example, the School of Biological Sciences offers BSc degree courses in Applied Biology, Biochemistry and Horticulture. However, the list is notable chiefly for what is missing. There are no degree courses available in English Literature, History, Music, Drama, Theology, or Fine Arts. Despite abandoning its title as a University of Technology, Bath retains its bias towards scientific and technological disciplines. The operative goals must therefore

be the education and training of scientists and technologists rather than, say, art historians.

While the volume of research is relatively easy to measure (in terms of expenditure from research grants and contracts or in terms of papers published), the balance of the research (as between pure and applied) is harder to quantify. The comments of the School representatives, reported in Chapter Thirteen, convey their subjective view that applied research predominates, but figures presented to the University Council in December 1984 show that Research Council grants (normally for 'pure' research) still constitute 39 per cent of the University's research income. (3)

The facilities, services and activities provided for staff, students and the local community are also revealing of the University's underlying goals. For many years the provision for sport was outstandingly good, though more recently other universities have matched or exceeded Bath's facilities; the Sports Hall, swimming pool, etc. are available to staff and students, with the local community being allowed to make use of spare capacity on occasion. The facilities for music, drama, painting, sculpture, etc. were for many years rudimentary, but after a decade of pressure from enthusiasts the University recently launched an appeal for funds to build a £1 million Arts Centre. Work on part of the Centre is expected to start in 1986. This initiative suggests that the University of Bath accepts as one of its goals the need to develop well-rounded human beings (to quote one of the statements in the questionnaire).

In recent years the University has made few major, or

even minor, changes in its portfolio of courses. However, in the two academic sessions 1983/84 and 1984/85, the Long-term Planning Committee (LTPC) conducted a detailed review of each School, and at the end of that time made certain recommendations. The factors which carried greatest weight with the LTPC were: the need to stimulate research; the need to ensure that Schools and Groups were of a viable size; the Government's preference for a shift towards science, engineering and other vocationally relevant forms of study; student demand; and staff:student ratios. All these factors relate to the University's goals, though some have an indirect bearing. For a variety of reasons the LTPC recommended only small movements of resources, and the Committee's final report was criticised by some members of Council for not being sufficiently radical. Even so, it has proved difficult to implement the LTPC's proposals: it took almost a year's debate in Senate to terminate one small degree course. The conclusion to be drawn from this situation can only be that the academic staff do not consider change to be sufficiently important to justify the undoubted battle which would result from, say, trying to close down an existing School and open a new one. The status quo is considered preferable to conflict on that scale. Insofar as members of Senate and Council are aware of the goals implied by the status quo, the goals must have a substantial measure of support.

In summary, it appears that the University of Bath's operative goals are still, on balance, those implied by clause 2 of the Charter. But there is growing dissent which is

already overt in some quarters.

6. The Schools' attitudes to the major issues covered by the questionnaire described in this thesis have been reported in detail in Chapter Thirteen.

7. Similarly the levels of agreement on the major explicit or implicit goals have also been described in Chapter Thirteen; important areas of conflict have been identified in answer to question 5, above.

The identity of the group which effectively makes decisions about the University of Bath's goals, or about activities which imply goals, is an interesting question. The key decision-making body is not Council, which has traditionally refrained from interfering in academic matters. In practice it is seldom Senate either, since Senate usually gives only perfunctory examination to proposals for changes in existing courses, and in recent years has seldom been in a position to recommend the establishment of new courses. One possible candidate for the source of decisions is a small but very influential Committee, the Vice-Chancellor's Advisory Committee (VCAC). The VCAC certainly has a decisive role in new research initiatives, which often have major resource implications; for the same reason (resource implications) the VCAC is the key committee in determining whether to terminate or establish any significant teaching activity. However, in the case of many activities which relate to goals, for instance activity within an existing degree course, the effective decision-maker is a group within a School which persuades a Board of Studies to make a recommendation to Senate; such groups are crucially

influential in determining the structure and content of degree courses. Nor should the freedom of the individual be underestimated. In many instances a lecturer has considerable discretion as to what he teaches, how he teaches it, and what he seeks to achieve. The individual lecturer also has a large measure of control over his own research activity.

(ii) Stage two: choice of methods and resource allocation

1. About ten years ago the first of a series of financial crises befell the university system and it gradually became obvious, even to the most unworldy academic, that the era of expansion was over. It followed that to embark on any new activity it was necessary to terminate an existing activity. In view of the complications caused by academic tenure, very few universities had the will to contemplate such a step. Bath was no exception. Furthermore Bath was not forced to make changes as a result of the 1981 cuts. Consequently few activities have been given significantly greater resources in recent years; the new initiatives which have been supported have resulted from small transfers of resources arising from vacant posts. Recent new developments include the establishment of a molecular graphics research unit (based in the School of Chemistry); a centre for molecular drug design (based in the School of Pharmacy and Pharmacology); research into biochemical engineering and biotechnology (Chemical Engineering); the development of the study of operations management

(Management); and specialisation in entomology (Biological Sciences). The allocation of resources to these activities does not represent any major change in the operative goals of the institution; most of the activities are research-orientated and the decision to move into these areas is further proof of the heavy emphasis on research which has already been noted. Several of the developments are also directly relevant to the needs of industry and commerce.

2. Almost all Schools in the University have experienced a reduction in resources over the past few years, but this has occurred because of the overall reduction in UGC funds rather than as a result of a deliberate policy. For several years now the University of Bath has found it necessary to review each academic post as and when it falls vacant, because of the cost implications of making a new appointment. Where possible, posts have been left vacant. Furthermore, older and less productive individuals have been encouraged to take early retirement; they have been replaced, if at all, by younger and cheaper staff. Only one activity of any consequence has been closed down - or at least the decision to terminate it has been taken. This is a small degree course in social science, history and philosophy, with an annual intake of about 10 students. This decision is perhaps more revealing of the University's goals than the new initiatives mentioned above. The School concerned (Humanities and Social Sciences) has in fact been more successful in terms of attracting students and generating research income than have many of the science and technology Schools; the decision to end this relatively non-

vocational arts course therefore represents, to some extent, an endorsement of the University's original 'objects' as laid down in the Charter.

(iii) Stage three: carrying out the necessary functions

Comments on the activities which the University of Bath is undertaking have already been provided in answer to question 5 in stage one.

(iv) Stage four: evaluation (accountability)

1. Since there are only rudimentary formal statements about the goals of the University of Bath (in the Charter), it cannot be said that information about the extent to which each explicit goal is being achieved is being collected. Certainly performance indicators are not formally related to the statements in the Charter.

2. The University of Bath uses a remarkable range of performance indicators; these are listed in full as Appendix Nine. The use which is made of these indicators is also remarkable, in that until recently the availability of most of them remained almost unknown within the University. Even now, comparatively few of the indicators are transmitted to Senate and Council, where discussion often centres on measures of efficiency, such as staff:student ratios, rather than on measures which reveal effectiveness. It is noticeable, however, that within the past two years the willingness of Senate and Council to take note of

performance indicators, and to initiate appropriate action, has increased.

The situation with regard to performance indicators is revealing of the attitude of academic staff in general and of individuals in particular. In the first place, the existence of many of the performance indicators is the result of the interest and enthusiasm of one man: the University's Planning Officer, Dr. B.J.R. Taylor. Over a number of years Dr. Taylor has developed his methodology to the point where the value of his analytical procedures is recognised internationally. More than half the British universities have sought specific help and performance evaluations from Dr. Taylor, particularly in respect of unit-cost analyses. The Commonwealth Tertiary Education Commission in Canberra is adopting Dr. Taylor's methodology for the budgetary analysis of Australian universities, and interest has also been shown by some American State Boards of Education. This is an example of how an enthusiastic inquirer, with comparatively limited resources, can make a significant contribution to research.

The past reluctance of the University of Bath's senior officers to make public many of Dr. Taylor's findings, and the reluctance to act on the conclusions which can be drawn from the findings, is also indicative of the massive resistance to change which exists in the university system and which has been noted by organisation theorists. To some extent this inertia (in all institutions) is the result of sheer cowardice and self-interest: Professor X is often reluctant to criticise the performance of another department lest next

year Professor X's own department be subject to the same searching analysis. In fairness, however, it has to be said that the reluctance to condemn a weak performance is often the result of a healthy awareness of the ignorance which many academics have of the problems facing any discipline other than their own. It is also true that there is no point in change unless it results in an improvement, and scientists in particular are not easily convinced that change will lead to improvement. Nevertheless, the resistance to change is marked in all universities and is often difficult to justify.

In summary, it appears that the University of Bath is now in exactly the position which was predicted in Chapter Fifteen for all universities: that is to say, it has available an awesome array of performance indicators with which to test the level of achievement of a series of (all too typically) ill defined goals. This is a lop-sided situation which seems likely to continue until and unless a high-ranking academic emerges whose interest in goals corresponds to Dr. Taylor's interest in performance evaluation.

3. The effectiveness of teaching is perhaps the area in which evaluation is most important, and it is precisely this area in which the University of Bath's performance indicators are weakest. In general, no direct assessment of teaching quality is made, though there are exceptions: a Head of School may sit in on an occasional lecture by a probationer, and a number of lecturers provide questionnaires by means of which students can make comments at the end of a course; the Students' Union is currently pressing for the latter arrangement to be formalised. The University of Bath is no

worse than any other university in terms of its lack of attention to teaching quality, but the idea that anyone qualified to obtain employment as a lecturer will automatically be a skilled teacher without any further training is clearly nonsense.

Although there is little direct assessment of teaching quality, the effectiveness of teaching is assessed indirectly. Graduation rates and classes of degree are reviewed, as are the success rates and completion rates for higher degrees. The numbers of graduates finding employment and external examiners' reports are also relevant.

No systematic attempt is made to test the views of students on graduating, or their views of the University some years after graduating. Insofar as the possibility has been considered at all (and it has not been formally considered by Senate), it has been rejected as too expensive and time-consuming to be worthwhile.

4. Judging by their willingness to employ Bath graduates, employers are well satisfied with the University's output. The University usually has a comparatively small number of graduates left unemployed in the December after graduation (often the lowest proportion of any university). The figure in December 1984 was 6 per cent. (4)

To some extent these figures may be deceptive: there may be some employers who have taken on a few Bath graduates, found them unsatisfactory, and ceased to recruit from the University. It would be illuminating to investigate such instances. In general, feedback from employers is almost certainly more effective than at many universities,

because the sandwich-course system requires many academic staff to visit industrial and commercial organisations at intervals.

5. It was mentioned in Chapter Five that Harvard University assesses the changes which have occurred in students during their years at the University: for example, losses or gains in reasoning ability are measured. No such tests are carried out at Bath, and the possibility has not been formally considered. It seems likely that most academics would argue that the normal academic assessment procedures are in themselves indicators of the knowledge and skills which have been acquired while at the University.

6. During the last two years the University's research performance has been the subject of almost obsessive internal interest. Detailed analyses have been made of the numbers of postgraduate students, the attraction of research funds, and publications. Only in the last year, however, has the true import of these analyses been made known to Senate: it is that the University of Bath, which had for a few years prided itself as being among the best research universities, is in fact performing rather less well than most in terms of some key criteria. For example, in early 1985 the Planning Officer provided evidence of the University of Bath's performance in terms of 'specific' expenditure, which is defined by the UGC as expenditure on research grants and contracts, and expenditure from income for services rendered. The Planning Officer's paper was intended to provide a view of the University as seen by the UGC; it is expected that the comparative level of 'specific' expenditure

will be a factor which the UGC will take into account in its forthcoming reallocation of funds for research. (5) Unfortunately, the University's performance, when compared with that of other universities, proved to be disappointing. Few Schools were consistently above the median of their peers, and the record of some key Schools in the Science and Technology Areas was poor. This comparative information was available in earlier years, but its significance was not recognised by the Long-term Planning Committee. That was unfortunate, because the substitution of hard data for subjective impression and hearsay might have led to important changes. As things stand it is difficult to find any justification for the UGC to continue funding research at the University of Bath at the present level while reducing research funds elsewhere. There is also subjective evidence to suggest that the recent heavy emphasis on research has led to a reduction in the quality of teaching. The University is therefore in danger of sacrificing one of its strengths for no corresponding gain.

7. The evaluation of the performance of staff is a matter which is given close attention by many organisations though not by most universities. For decades it has been considered ungentlemanly (in the university system as a whole) for students to criticise their lecturers, and quite unnecessary for lecturers to contemplate formal training in teaching. The University of Bath's attitude to these matters has already been mentioned, and there are no immediate signs of any intention to make teaching more effective. However, in the past two years the Long-term Planning Committee has

examined the research performance of each individual member of academic staff, and has expressed both satisfaction and dismay at the varying results. The chief criteria applied in this analysis have been the number and value of research grants and contracts, and the number of publications. Senate has now agreed that each member of academic staff will annually be required to complete a form which lists his activities and achievements, principally in research; the record will then be discussed with his Professor or Head of Group. This innovation was accepted with a surprising lack of opposition and it remains to be seen how the procedure will work in practice. Certainly the Personnel Officer wishes to see the evaluation procedure incorporated into an overall staff-development policy which will include appropriate arrangements for training.

The senior administrative staff will welcome any moves to establish effective arrangements for staff development. For several years the administrative staff have been urging the University, through the AUT, to institute a system of annual appraisals as part of a more effective staff-development policy which would include job rotation and better training. So far such proposals have been rejected.

In summary, it has to be said that the University's current arrangements for staff development, for both academic and senior administrative staff, are not adequate.

Conclusions drawn from the results of the inquiry

It was suggested in Chapter Sixteen that the mass of information

produced by the method of inquiry might usefully be codified into a draft (or revised) mission statement for the university being investigated. In the case of the University of Bath, no previous mission statement existed, and it was therefore necessary not just to note departures from an existing policy but to draw up a statement of goals from scratch. Such a document is set out in section (i) below. It should be noted that this mission statement does not incorporate the researcher's own preferences; it is not in any sense a prescriptive list. It simply records those goals which, the evidence suggests, are currently being given substantial emphasis within the University of Bath. It is possible that some additional goals, which are listed in the catalogue in Chapter Nine, would find wide acceptance within the University, but if no evidence has been found that they are being actively pursued, they are not included.

Mission statements often cover much more than 'mission', which is normally defined as the university's purpose encapsulated in a few sentences. American mission statements commonly incorporate goals for the university as a whole, together with goals for individual departments, and sometimes objectives for individual courses. The draft mission statement which follows has been prepared along American lines: it proceeds through a list of goals in relation to students generally, and goals in relation to society, to a set of goals for one School of the University of Bath (Management) and one degree course within that School (the BSc degree in Business Administration). The mission statement therefore conforms with the recommendation of the 1985 Green Paper, which calls for the establishment of 'objectives' for each department. The School of Management was selected for use as an illustration of the method because there exists a large amount of documentation on the School's aims, and because the structure and content of the degree course in business administration have recently been fully reviewed.

It will be recalled that the Green Paper and the Jarratt Report both lay stress not only on the clarification of purpose but on performance evaluation. After each goal statement some indication is therefore given, in brackets, of the performance indicator(s) (PI) which would be appropriate in evaluating success. An asterisk indicates a PI which is not, in fact, available. For a full list of the performance indicators which are currently used in the University of Bath, see Appendix Nine.

(i) A draft mission statement for the University of Bath

Introduction

The University's central concerns are the preservation, transmission, creation and application of knowledge.

Knowledge is preserved within the University Library, within the memory of computers, and by other physical means such as the establishment of archives. Knowledge is also stored within the mind of members of the University.

Knowledge is transmitted through teaching and writing.

Knowledge is created through research. Scholarship is the mastery of existing knowledge, a process which is essential for effective teaching and which can in itself provide new insights.

Knowledge is applied by members of the University to both internal and external problems.

The University's Charter calls upon it 'to advance learning and knowledge, by teaching and research, particularly in science and technology, and in close association with industry and commerce.' The Charter also states that the University shall have power to undertake 'research in the pure and applied sciences and technologies... in

co-operation with industry and other relevant bodies.' (6)

In order to achieve its overall aims, the University has identified certain goals in relation both to students and to society at large. These goals are specified below, together with (in brackets) the means by which the level of achievement may be tested in each case.

Goals relating to students

The University seeks to enable students to acquire the following skills:

1. A knowledge of one or more academic subjects, particularly in connection with preparation for a career. (PI: course work; examinations; surveys of employers' opinions after a period of employment*.)
2. The ability to evaluate facts and ideas critically. (PI: course work; examinations; surveys of employers' opinions*.)
3. The ability to undertake self-directed learning. (PI: course work; surveys of graduates' and employers' opinions*.)
4. The ability to analyse one's own talents, interests, aspirations and weaknesses. (PI: surveys of students' opinions, periodically, during and after study at the University.*)
5. The ability to work with others. (PI: surveys of employers' opinions.*)
6. The ability to apply knowledge in order to solve practical problems. (PI: surveys of employers' opinions.*)
7. The ability to cope with change. (PI: surveys of graduates' and employers' opinions.*)

8. The ability to make sound career decisions. (PI: surveys of graduates' opinions, periodically after graduation.*)
9. The ability to find rewarding uses for leisure time. (PI: surveys of graduates' opinions.*)

The University seeks to encourage students to adopt the following attitudes:

1. Respect for the truth.
2. An appreciation of the value of scholarship and research.
3. A sense of social responsibility.
4. An awareness of the needs of industry and commerce (to be inculcated, as far as possible, through direct experience.)
5. An awareness of the value of sport and physical recreation.
   (PI: changes in all the above attitudes could be assessed through psychological testing, periodically during study at the University and at intervals thereafter.*)

In addition, the University seeks to provide an environment within which the students' experience of university life will be satisfying, rewarding and pleasant.

Goals relating to society

The University's aims in relation to society are as follows:

1. To assist in the preservation of knowledge, through scholarship, publications, libraries, museums, information retrieval systems, and other means. (PI: data on numbers of publications, library stock, museum support, etc.)

2. To disseminate such knowledge as is needed to achieve the University's goals in relation to students (as listed above). (PI: as for student-related goals.)
3. To discover new knowledge through research, both pure and applied. (PI: data on volume and value of research grants and contracts; information on research results; patents, consultancies.)
4. To apply knowledge to the solution of practical problems in industry, commerce, and society at large. (PI: reports of research results; publications.)
5. To provide services for the surrounding community, through the provision of lectures, concerts, plays, exhibitions and other means. (PI: data on the number and variety of services offered.)
6. To identify individuals with skills which are needed by society; to develop those skills, and to certify the level of achievement of each student. (PI: data on intake quality as revealed by 'A' level scores; degree classifications; attraction rates for masters and doctoral students; completion rates for research degrees.)
7. To offer opportunities for study to students from overseas. (PI: data on the number, origin and degree classifications of overseas students.)
8. To provide continuing-education courses. (PI: data on the number and variety of courses offered.)

Subsidiary goals

In order to achieve its goals, both in relation to students and in relation to society, the University will seek:

1. To recruit students of high ability.

2. To recruit staff of high quality.
3. To obtain resources which are adequate for the fulfilment of all other goals.

Goals for the School of Management (7)

1. The School of Management's principal goals are (i) to advance the understanding of enterprises of all kinds, and (ii) to meet the needs of industry, commerce and public-sector organisations. The primary needs of all three types of organisation are for trained personnel and for research which will improve their effectiveness and efficiency; comment and advice are also needed. (PI: 'A' level grades; degree classifications; employment rates; surveys of employers' opinions*; number and value of research grants and contracts; publications.)

2. In order to meet the need for trained personnel, and by so doing to assist in the maintenance and growth of national productivity, the School will undertake the following activities:

   BSc degree course in Business Administration

   BSc degree course in Manufacturing (jointly with the School of Engineering)

   MSc degree course in Business Administration

   Post-experience courses.

   The courses are intended to train the mind through studying business. In all courses the emphasis will be on the development of skills and the acquisition of knowledge which are directly related to the problems of practising managers; any learning about management is only valid if tested in action. The aims will be to attract students of high ability who have the potential to become the top

managers of the future. Close links will be established between the School of Management and the technological Schools in order to equip students to cope with rapid technological change. Through the award of degrees (classified at first-degree level), the School will certify the level of skill which has been achieved by each student.

3. In order to meet the need for research which is relevant to solving the problems of industry, commerce and public-sector organisations, the School will undertake the following activities:

   Supervision and training of research students, organised so as to provide a strong methodological base for research which is relevant to the problems of practising managers.

   Problem-orientated research by interdisciplinary teams of academic staff.

4. The School intends to develop operations-management activities with the dual aim of placing the production of goods and services firmly among the factors which determine corporate strategy, and of improving production processes generally. The School also intends to expand enterprise-development activities to include higher level in-company instruction, practice-related research and consultancy.

Goals for the BSc degree course in Business Administration (8)

The BSc course in Business Administration is a four-year course which includes two periods spent in industry or commerce. It is designed to prepare students for managerial and administrative careers in industry, commerce and public administration, and for professional training in such fields as accountancy, management service, marketing and personnel management. It seeks to achieve these aims through a programme of

broadly based, interdisciplinary study.

The goals of the course are to equip students with certain skills and to instil certain attitudes; these skills and attitudes are listed below. The goals are divided into three categories: key goals, major goals, and subsidiary goals. The order of items within each category is not significant. (It relates to their position in the catalogue of goals provided in Chapter Nine.)

Key goals

The goals which are regarded as most important for the BSc course in Business Administration are to equip students with:

1. The ability to undertake self-directed learning. (PI: course work; examinations; surveys of graduates' and employers' opinions*.)
2. The ability to cope with change. (PI: surveys of graduates' and employers' opinions*.)
3. The capacity to learn from experience. (PI: surveys of graduates' and employers' opinions*. Note: employers' opinions are already being surveyed on an informal basis.)

Major goals

Other major goals for the course are to develop in students the following abilities and attitudes:

1. A deep and detailed knowledge of a selection of the following subjects (according to the options taken by each individual student):

   Financial accounting

   Management accounting

Financial and management accounting on the computer

Behaviour in organizations

Business economics

Business computing

Mathematics

Statistics

Context of enterprise management

Elements of English law

Business forecasting

Computing and information technology

Financial management and control

Industrial relations

Marketing

Operations management and market analysis

Personnel management

Business policy and organisation

Applied statistics

Business law

Capital market investment

Competitive analysis

Corporate model building and corporate planning

Econometrics

Economics of nationalised industries

Financial management and control of small firms

Industrial change and the politics of production

Industry and the state

International marketing

Interpersonal behaviour and organizational development

Labour economics

Labour Law

Management of creativity in organisations

Marketing analysis

Operational research

Operations management

Problems, decisions and consultancy

Strategic management

Survival in organisations

Technology management

Transport economics and policy

(PI: course work; examinations; surveys of employers' opinions*.)

2. The ability to comprehend through listening, reading and doing. (PI: course work; examinations.)
3. The ability to speak and write clearly, correctly, fluently. (PI: course work; examinations.)
4. The ability to organise ideas and to present them effectively, particularly in discussion. (PI: practical tests; course work; examinations.)
5. The ability and disposition to weigh evidence, to evaluate facts and ideas critically, and to think independently. (PI: course work; examinations.)
6. The ability to form prudent judgements and to make decisions; the ability to analyse and synthesise. (PI: surveys of graduates' and employers' opinions*; course work, examinations.)
7. A willingness to question orthodoxy and to consider new ideas. (PI: course work; examinations.)
8. Imagination in formulating new hypotheses and ideas. (PI: course work; examinations; surveys of employers' opinions*.)

9. Knowledge of one's own talents, interests, aspirations and weaknesses. (PI: surveys of graduates' opinions*.)
10. Self-confidence. (PI: surveys of graduates' and employers' opinions*.)
11. The ability to co-operate. (PI: practical tests; surveys of employers' opinons*.)
12. The ability to apply knowledge in order to solve practical problems. (PI: surveys of graduates' and employers' opinions*.)
13. A motivation towards accomplishment. (PI: surveys of graduates' and employers' opinions*; changes in attitude can also be assessed by psychological testing*.)
14. Initiative, energy, persistence, self-discipline. (PI: surveys of graduates' and employers' opinions*.)
15. Resourcefulness in coping with crises. (PI: surveys of employers' opinions*.)
16. The capacity to learn from experience. (PI: surveys of graduates' and employers' opinions.*)
17. The ability to negotiate and a willingness to compromise. (PI: practical tests; surveys of employers' opinions*.)
18. A willingness to assume responsibility. (PI: surveys of employers' opinions*.)
19. Readiness to seek advice. (PI: surveys of employers' opinions*.)
20. An awareness of the needs of industry and commerce and an awareness of how managers make decisions in practice (through direct experience). (PI: surveys of employers' opinions*.)
21. The ability to make sound career decisions. (PI: surveys of graduates' opinions*.)
22. Adaptability. (PI: surveys of employers' opinions*.)

Subsidiary goals

The course is also intended to develop the following qualities:

1. An awareness of the history and contemporary features of technology. (PI: course work; examinations.)
2. Intellectual curiosity. (PI: project work.)
3. An understanding of the limitations of science and philosophy. (PI: course work; examinations.)
4. Conscientiousness of inquiry and accuracy in reporting the outcomes of inquiries. (PI: course work; examinations.)
5. An awareness of the value of scholarship and research. (PI: course work; examinations.)
6. The ability to locate information when needed. (PI: course work; surveys of graduates' opinions*.)
7. The ability to express emotions constructively. (PI: surveys of employers' opinions.*)
8. Spontaneity. (PI: surveys of opinions: graduates', employers', fellow students'.*)
9. A capacity for empathy. (PI: surveys of opinions: lecturers', employers', fellow students'.*)
10. A personal set of values and moral principles. (PI: surveys of lecturers' and graduates'* opinions.)
11. A sense of social responsibility. (PI: surveys of employers' and fellow students' opinions.*)
12. The capacity to win the confidence of others. (PI: practical tests; surveys of employers' opinions*.)
13. Knowledge of the major political philosophies. (PI: course work; examinations.)

14. Knowledge of governmental institutions and procedures. (PI: course work; examinations.)
15. Knowledge of current affairs. (PI: course work; examinations.)
16. Knowledge of the law. (PI: course work; examinations.)

(ii) Comments on the draft mission statement for the University of Bath.

The mission statement which has been drafted above is, by definition, one which it is believed would be acceptable to the majority of members of Senate and Council in the University of Bath in the year 1985. Of necessity it is a broad-based document: as American commentators have frequently observed, the more specific the terminology, the less easy it is to obtain majority approval. However, the mission statement does not so much gloss over differences of opinion as allow them to be accommodated within it. For example, those who believe in sandwich courses would approve of item 4 in the list of attitudes; those who do not favour the sandwich principle will draw attention to the phrase 'as far as possible'. Drafting a statement so as to embrace differences of opinion is not the same thing as pretending that differences do not exist.

The mission statement is simply a summary of intentions: it says very little about means. The consideration of the choice of means is a matter for the University's planning procedure, and it requires a combination of top-down and bottom-up planning. The Schools and Groups within the University will have the clearest idea of what means are needed to achieve the detailed goals, and they will have to ask for the appropriate resources; but the final decision on resource allocation can only be made at the centre. (It is worth noting that the Jarratt Report

found little evidence of real consideration of the various options during planning, though the University of Bath was not one of the universities investigated in depth by the Jarratt Committee.)

The analysis of the goals of the BSc Degree Course in Business Administration provides support for the view that, in British universities, goals are discussed indirectly rather than directly. The member of staff who was Director of Studies for the course at the time when it was fully reviewed (in 1983/84), commented during an interview with the researcher that goals for the course were considered 'at one remove'. He was readily able to identify, from the catalogue provided in Chapter Nine, the goals which are implicit in the BSc course, but the explicit statement of objectives which is given in the course booklet is only a few lines long. (The statement is quoted almost verbatim in the first paragraph of the analysis of course goals given above.) There are two problems with such indirect discussions about the purpose of degree courses: one is that not all participants will be aware of the goals implicit in any activity, and therefore confusion and misunderstandings may arise; the other problem is that such discussions fail to consider the university experience as a whole - and most observers would agree that there is more to being a student than completing a course of study. The only advantage in avoiding the overt discussion of goals is that staff can continue to pursue goals which may differ greatly without the possibility of disagreement degenerating into personal antagonisms.

Another interesting point emerges from the analysis of goals for the BSc course in Business Administration: it is that the level of achievement of all the key goals of the course is incapable of being fully assessed while the student is at the University. Two of the goals (the ability to cope with change and the capacity to learn from experience), can scarcely be assessed at all while the student is at Bath. Indeed it may

well be impossible to devise any satisfactory means of establishing the extent to which the four-year course has developed those qualities; the student's subjective assessment of changes in himself, together with the employer's assessment of the ex-student's level of ability in each case, may have to suffice. It is also difficult to measure the extent to which many other abilities and attitudes have been developed by the course: the ability to form prudent judgements and the willingness to question orthodoxy are examples of characteristics which are difficult to measure satisfactorily. Other qualities can only be tested during subsequent employment: the ability to solve practical problems and resourcefulness in coping with crises, for instance. It is also noteworthy that the course involves very little consideration of business ethics and personal morality.

(iii) The clarity and appropriateness of the University of Bath's goals

Once the basic data have been assembled, the method of inquiry provided in Chapter Sixteen calls for the inquirer to consider two further questions. The questions are: how satisfied is the inquirer with the clarity of the goals of the institution he is investigating; and how satisfied is he that they are the right goals. Finally, it would scarcely be worth undertaking the study at all if the inquirer were not then to ask himself what action he should take as a result of his deliberations. These questions will be considered in respect of the present analysis.

Whatever criticisms may be made of the draft mission statement offered above, it cannot be denied that it is more detailed than anything published by the University. This situation alone gives support to the view that the goals of the University of Bath are inadequately defined. However, the main justification for reaching that conclusion lies in the

answer to a subsidiary question: in practical terms, does it matter if goals are not clearly identified? This is a question of judgement rather than of verifiable fact, but the reseracher's conclusion is that it does matter. The consequence of the failure to identify the University of Bath's goals with precision is that the operative goals have shifted almost by accident rather than as a result of public debate and agreement. For example: if the University had embodied its original ethos (as outlined in the Charter) into a more detailed statement of goals, that document could have been used for, among other purposes, the recruitment of staff. Applicants could have been given a clear picture of the goals of the institution they were seeking to join; they could have been questioned about their attitude to those goals; and they could have been accepted or rejected in light of the extent to which their skills and attitudes matched those needed to achieve the University's goals. But, in the event, no such document was available. All that was available was a general impression that research should be the main criterion for the appointment of staff. As a result, the University now has a complement of staff who are out of sympathy with the original ideals of the institution; these staff are in actual or potential conflict with those who remain convinced that the early goals are still the most appropriate ones. For all of these reasons, it must be concluded that the lack of a mission statement (whether known by that name or any other) is a serious matter.

The question of whether the University of Bath's goals, past or present, explicit or implicit, are the 'right' ones, is also a matter of judgement. It is, however, a matter of fact that twenty years ago the University of Bath's campus was an empty field. In the space of twenty years the University has erected large numbers of buildings, has recruited large numbers of new staff, and has embarked on numerous new activities. All these developments have been time-consuming and have

placed great demands on staff of all grades, demands very different from and probably greater than those experienced by staff in universities which were established decades or even centuries earlier. Few observers, and certainly not this researcher, would argue that a new university could undertake all these housekeeping exercises and at the same time compete successfully in teaching and research with the older universities. The goals which are implied in the Charter are even more in tune with society's needs in 1985 than they were in 1966. Purusing such goals unequivocally would have given the University a distinct identity which it could have maintained without exposing itself to comparison with older institutions, the achievements of which it could not hope to equal. Unfortunately that course has not been pursued consistently. In some Schools there seems to be movement away from the goals currently preferred by the environment; what is even more unfortunate is that changes seem to be occurring by default or by diktat rather than as a result of discussion. It is probably not too late for the University to retrieve the situation, and at the time of writing there are some signs that senior officers wish to do so.

The final question which those using the method of inquiry are invited to consider is what they intend to do about the situation which the answers have revealed. With rare exceptions, such as those who hold the office of Vice-Chancellor or Chairman of Council, there is little that one individual can do to alter the course of any university. Even for those in positions of authority, the implementation of change demands leadership qualities of a high order. For example, suppose that, in the present instance, the inquirer wished to influence the University of Bath towards adopting goals which were more in keeping with those implied by the Charter than the operative goals of the University appear to be at present. To achieve that aim it would be necessary to persuade (or

assist) Council to follow the recommendation of the Jarratt Report and assert itself as the governing body of the University. Council would have to insist on specifying the University's goals in detail, in discussion with Senate, and the newer staff would have to be persuaded (or required) to restore the vocational/applied emphasis in teaching and research. It would be necessary to set up a system of rewards for links with industry and commerce and penalties for inactivity. The experience of 1981, in universities such as Aston and Salford, suggests that this could be done, but it would be more likely to be achieved with the aid of external pressure than by the force of internal argument alone. This conclusion provides little comfort for advocates of university autonomy.

Comments on the practicality and effectiveness of the method of inquiry

In this chapter the method of inquiry which was outlined in Chapter Sixteen has been used to analyse the goals of the University of Bath. (In the process the method of inquiry has itself been refined.) This 'pilot test' of the method has demonstrated that a large amount of work is necessary if the information required for a full analysis of goals is to be assembled. In order to obtain an adequate cross-section of views it is necessary to interview a substantial number of members of the university; it is also necessary to select the right individuals to interview, and unless the researcher is a long-serving member of the institution, an experienced adviser will be a great asset. The pilot test has made it clear that this work can be undertaken successfully by a single individual, and there are some advantages in that procedure: one person then has an overview of all the evidence. However, in some instances it may well be more convenient for the task to be managed by a group of researchers: this

will be particularly likely if it is intended to analyse the goals of every course. In any event, before embarking on the study, the researcher(s) should consider whether it is necessary to adopt or refine the basic method, depending on the circumstances. For example, it may well be necessary to draw up a revised list of questions for semi-structured interviews. Ideally an inquiry should have the full support and approval of the university's Vice-Chancellor and other senior officers.

Subject to these comments, the evidence of this chapter suggests that the method of inquiry which has been provided constitutes a practical and effective means of analysing the goals of a British university. The information obtained through the method of inquiry should preferably be supplemented by means of a questionnaire, similar in design to that described in Part Three of this thesis.

NOTES ON CHAPTER SEVENTEEN

1. University of Bath (1985).
2. Crequer (1985).
3. University of Bath Council paper C84/85 10. The Chancellor (Lord Kearton) expressed concern about the low level of income from UK industry and commerce which this paper revealed.
4. Figures provided by the University of Bath Careers Advisory Service.
5. Crequer (1985).
6. University of Bath (1985).
7. The list of goals for the School of Management is derived from a number of sources: the School's submission to the Long-term Planning Committee (paper L84/85 8); the School's Annual Report for 1984/85; and from discussions with Professor R.E. Thomas and Dr. D.B.P. Sims.
8. The list of goals for the BSc Degree in Business Administration was drawn up in the light of information contained in the School's course booklet and after discussions with Professor R.E. Thomas and Dr. D.B.P. Sims.

CHAPTER EIGHTEEN: CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter sets out the conclusions which have been drawn from the research and makes recommendations for action based on those conclusions.

The overall aim of the thesis has been to assist readers to decide what the goals of a British university should be. To achieve that aim, the thesis provides the means whereby an individual can:

(i) obtain an overview of the range of possible goals for a university; and

(ii) find out what the goals of a particular university actually are at any given time.

Broadly speaking, Parts One and Two of the thesis provide the means for improving an individual's own understanding of the range of goals, while Parts Three and Four provide a methodology for investigating the operative goals of a particular institution; this division is not, however, absolute.

Conclusions drawn from Part One

Part One provides the philosophical and historical frame of reference which is needed for an informed consideration of university goals.

(i) Chapter One

The first chapter draws attention to the distinction between a university's mission, its goals and its objectives. This hierarchy of

purpose presents a number of problems. For example, it is not always easy to move logically from mission to goals to objectives; there are also difficulties in measuring the extent to which goals have been achieved. However, the evidence suggests that such problems are often more theoretical than practical, and that they do not constitute a valid excuse for failing to clarify purpose.

(ii) Chapter Two

Chapter Two surveys philosophy as a source of ideas about what the goals of a university should be. Two main ideas are identified which have recurred periodically over the centuries. The first of these ideas is the vocational philosophy of higher education: this embodies the belief that society needs trained manpower and that higher education should therefore prepare students for the world of work. The second idea is the liberal, or liberal arts philosophy: adherents of this view argue that the trained mind can be applied to any activity. The study of philosophy also reveals that, for better or for worse, science cannot resolve disputes about value judgements; debates about the ultimate purpose of higher education will therefore continue.

(iii) Chapter Three

Chapter Three examines three approaches to the analysis of universities in order to find out what light they shed on the actual or potential goals of such institutions.

The first viewpoint considered is that of organisation theorists. Universities, it appears, are unsatisfactory organisations: they are sometimes described as organised anarchies, having ambiguous goals and

weak governmental systems.

In the immediate post-war years, the British nation invested heavily in the establishment of universities, with hopes of a correspondingly high return in the shape of economic growth. In recent years there has been some modification of expectations, but economists have demonstrated that universities still offer a good return on investment for society and an even better return for the average individual.

A third approach to the analysis of universities' purpose is that provided by the concept of manpower planning. This technique views universities primarily on a mechanism for producing a highly trained work-force. Whatever virtues this approach may have in theory, it proves difficult to apply in practice; the techniques work better in the centrally planned enconomies of the eastern bloc than in the democracies of the west. The rigid application of central control leads to a loss of individual liberty which is unacceptable in this country; on the other hand, failure to take any account of manpower needs will clearly lead to waste. This is therefore one area in which the usual British compromise has much to commend it.

(iv) Chapter Four

Chapter Four considers what the goals of British universities have been, historically speaking, and identifies the landmarks in the history of British higher education.

The historical review in this chapter makes it clear that universities have never been swift or flexible in responding to changing needs. In the nineteenth century, the refusal of Oxford and Cambridge to train middle-class students for industry led directly to the establishment of new universities. In the years after the second world war, new universities

became necessary because the existing ones simply could not cope with the demand.

The massive growth in government investment in the universities has led to a steady (but by no means commensurate) growth in the Government's desire to influence the universities. The establishment of the binary policy was a direct outcome of this desire for greater central control over higher education.

Major investigations into higher education, such as that conducted by Lord Robbins in the 1960s, or the Leverhulme Inquiry in the 1980s, have devoted surprisingly little attention to questions of overall purpose. The Robbins Report did review the aims of higher education, in a very English, amateur way, but its conclusions can scarcely be regarded as a blueprint for the rest of the twentieth century. The Leverhulme Inquiry did not begin with a consideration of goals at all, but it did conclude by arguing that institutions should make their intentions clear in the form of mission statements, to be agreed with the funding body.

The main conclusions of Chapter Four are that, in the post-war period particularly, there has been a large expansion in the number of British universities, principally with the aim of increasing economic growth. For much of the time this growth was 'demand led' - that is to say, the aim was to allow students who were qualified for higher education to take courses in subjects of their own choice. To a large extent the consequences which this demand-led growth would have on the volume and nature of research were either ignored or were assumed to be beneficial. The age-old debate about the vocational or liberal emphasis of degree courses continued, and a lesser debate about whether courses should be broad-based or specialised began.

Conclusions drawn from Part Two

The main aims of Part Two are to determine the extent to which stakeholder groups have formally considered what the goals of British universities should be, and to identify areas of actual or potential disagreement, both within and between groups.

(i) Chapters Five and Six

A description of the methodology adopted for Part Two is provided in Chapter Five.

Chapter Six reviews the American approach to university goals with the aim of identifying good practice in this context. The legacy of such systems as PPBS and MBO is that most American universities are well aware of the need to clarify their goals; in some instances they are under a legal obligation to produce mission statements. As a result, a large amount of research has been undertaken in the USA, both to analyse the range of possible goals and to develop techniques for measuring opinions on what the principal goals should be.

Study of the American experience is valuable because it reveals certain pitfalls to avoid, and also identifies a number of practices which British universities would do well to emulate. The pitfalls include pompous mission statements, which are simply window-dressing, and over-elaborate questionnaires; among the more valuable features of American practice are a recognition of the fundamental importance of purpose and a willingness to discuss it openly.

It is interesting to note that in the late 1960s the Educational Testing Service at Princeton started out by concentrating on evaluation, but it soon became clear to the researchers that in order to assess the

level of success it was first necessary to identify an organisation's goals. In 1985 the British Government has published a Green Paper on higher education which shows great interest in performance indicators but no corresponding awareness of the importance of clarifying purpose.

(ii) Chapter Seven

Chapter Seven is concerned with the British approach to university goals. The research reveals that very few British universities can produce a formally agreed statement of purpose; most can only quote a few words from their Charter, and several Registrars considered it odd to be asked even for that. The response from Cambridge University - ten words in Latin from the time of Edward VI - would be amusing if it were not all too typical of the arrogance which has done so much damage to British universities in recent years.

Given the attitude of senior university officers, it is not surprising to find that only a small amount of research into the goals of British universities has hitherto been undertaken. Most academic staff seem to take the view that every educated person knows what a university is, just as every child knows what an apple is; further definition is considered superfluous. Such an attitude might be acceptable if universities occurred naturally, as apples do; but, since universities are man-made structures which consume large volumes of public funds, the attitude is fundamentally unsound. It can be argued that universities should be judged not by what they say (or fail to say), but by what they do, and that it is naive to expect complex organisations to produce simplistic statements of aims. It can equally well be argued that it is naive to suppose that universities can go on expecting to receive large sums of public money without being prepared to justify their existence to laymen;

and since the universities, when attacked in 1981, found few lay defenders, the latter argument appears the more convincing. At a time when universities are once again being threatened with a reduction in resources, the continual failure to address the question of purpose, with the same rigour as other intellectual issues are addressed in universities, seems positively perverse.

(iii) Chapter Eight

Chapter Eight reviews the opinions of the principal stakeholder groups on what the goals of a university should be. The evidence which is assembled in this chapter shows that few stakeholder groups have given much formal consideration to the matter. This is scarcely surprising, particularly in view of the universities' own failure in this respect. In some instances it is possible to deduce a group's views on goals from statements made publicly about university activities, such as teaching, research, or links with industry. Many such opinions are critical of the universities. It has to be remembered, however, that satisfied customers are les likely to speak up than are the disenchanted.

The overall position with respect to stakeholders' opinions suggests that it would be helpful to have available an analysis of the whole range of possible goals for universities, so that interested parties could choose which goals to support and which to reject. Such an analysis is provided in Chapter Nine.

(iv) Chapter Nine

It was noted at an early stage in the research that no previous researcher had attempted to draw up a classified list of goals for British

universities. It was therefore decided to produce one. The catalogue is intended to be of value in analysing the goals which universities have adopted, consciously or unconsciously; it also enables interested individuals (or groups) to familiarise themselves with the range of possible goals and to choose the ones which they believe should be given the greatest emphasis.

Few of the goals which are listed in the catalogue are likely to surprise the reader. The value of the list lies not in the unfamiliarity of the contents but in having an analysis easily to hand. The catalogue is not considered exhaustive. It does not purport to be a list of all conceivable goals; it is simply a classified summary of those goals which have been given substantial emphasis in recent years, either in the relevant literature or in practice.

It should be noted in this context that it is relatively easy to select goals; it is harder to identify the means of achieving those goals, harder still to carry out the necessary work, and in some cases it may be impossible to establish whether the goal has been achieved. For example, how can we ever prove that a degree course has developed in a student the capacity to cope with change? It may be possible to measure the extent to which a graduate and his employers believe that he can cope with change, but it is clearly never going to be possible to compare that level of ability with the level which would have existed had the graduate not taken the course at all. Such problems are, however, outside the scope of this thesis.

(v) Chapter Ten

Chapter Ten discusses six areas of controversy in the field of university goals, in order to clarify the issues involved. The six

controversial topics are:

Teaching: (i) whether degree courses should be liberal or vocational; and (ii) whether they should be broad-based or specialised.

Research: (i) whether research is an essential function of a university or not; and (ii) whether it should be pure or applied.

The role of academic staff: (i) whether a lecturer should argue a particular point of view, or should allow students to form their own conclusions; and (ii), in relation to society, whether a lecturer should adopt a passive 'civil servant' role, or be an active critic and an instigator of change.

These six issues were selected because they were judged to be the most important areas of controversy in the mid 1980s; disagreements about them are essentially disagreements about the underlying goals. Chapter Ten summarises the main thrust of the argument on either side of the issues. No attempt is made to resolve the long-standing debate on these topics. Indeed on some of them there perhaps can be no 'right' answer: many observers would argue that degree courses should be both vocational and liberal, and that both pure and applied research are essential for the well-being of society. The intention in Chapter Ten is therefore to identify the most likely areas of conflict, both within stakeholder groups and between groups, so that some form of agreement or working compromise may be reached before the conflicts become too damaging. Anyone who has worked in a university for very long will know that internal disputes can sometimes have the most serious consequences, with many years of work being destroyed in a much briefer time.

Having identified some key areas of controversy it was considered desirable to investigate attitudes to these issues in more detail. American experience has shown that there are a number of ways in which data about stakeholder groups' opinions can be assembled: through a review of official statements by such groups; by means of interviews; and through the use of questionnaires. As far as the stakeholders of British universities are concerned, Part Two contains a review of their formal and informal pronouncements; Part Three describes the design and administration of a questionnaire; and Part Four illustrates how interviews can be used to help to delineate the operative goals of an institution more clearly.

Conclusions drawn from Part Three

Part Three describes the steps which were taken to measure the attitudes of certain stakeholder groups towards the six issues (and the underlying goals) which were identified in Chapter Ten. This procedure was carried out in order to identify a satisfactory method of measuring attitudes towards important university goals, in a British context, and to obtain information which would be of value in itself.

(i) Chapter Eleven

Chapter Eleven records how a questionnaire was designed and administered to eight groups. The primary intention was to obtain information about attitudes in relation to the University of Bath; to assist in that aim, corresponding groups in a Comparator University were also surveyed.

The eight groups were as follows:

University of Bath:	first-year students
	academic staff
	employers recruiting from the University
Comparator University:	the same three groups
Conservative MPs	
Labour MPs	

(ii) Chapter Twelve

Chapter Twelve provides details of the results which were obtained from the questionnaire. The results demonstrate that from a technical point of view the questionnaire was capable of identifying real differences in the attitudes of the groups surveyed; the instrument was therefore satisfactory for its purpose. From a broader perspective, the results support the conclusion of American researchers that, although science cannot decide which are the 'right' goals to pursue, scientific and systematic methods of inquiry can shed useful light on the level of agreement on goals both within groups and between groups.

In essence, the findings are that at the time when the questionnaire was completed, all eight groups were in favour of liberal education, and all except Conservative MPs favoured broad-based courses. There was strong support from all groups for research in universities, with a preference for the applied variety (only the Comparator academics supported pure research). All eight groups were strongly of the opinion that lecturers should adopt an expository style in relation to their students, and all groups except Conservative MPs preferred an active to a passive role for lecturers in relation to society. Comments on the

differences of opinion within groups, particularly the academic staff of the University of Bath, are made in Part Four.

Conclusions drawn from Part Four

The aims throughout Part Four, as in the rest of the thesis, are to clarify issues relating to university goals, to encourage discussion of topics which are often avoided, and to provide practical assistance to those who wish to determine what the goals of universities actually are, what they could be, and what they should be.

(i) Chapter Thirteen

Chapter Thirteen describes the steps which were taken to obtain information to supplement the findings of the survey reported in Chapter Twelve; the main focus of interest remains the University of Bath.

The main conclusions of this chapter are that in recent years the University of Bath has recruited academic staff who differ in significant ways from those who were in post when the University was a College of Advanced Technology. The typical new member of staff no longer has industrial experience, but he has, or will soon acquire, a research degree, and is judged to have high research potential. This change appears to have come about as much by force of circumstance as through a conscious change of policy. The intention to develop excellence in research was certainly approved by Senate; what was never overtly agreed was that other considerations would be abandoned in the process.

Changes have also occurred in the student population. Students are now unlikely to have worked on a factory floor; they are more likely to have followed the orthodox sixth-form, 'A' level route to university.

They are likely to be more intelligent than twenty years ago, but less committed.

The courses offered by the University of Bath are still vocational in nature, but the number of staff who regard the quality of teaching as their main concern is diminishing. There is heavy emphasis on research in the University, and income from Research Councils exceeds that from industry and commerce.

In one School at least there is a bitter conflict of opinion on the extent to which a degree course should be linked to industry; this conflict may be echoed in other Schools. A conflict may well develop between the University Council and the Senate. Council seems likely to press for greater contact with industry and commerce, in keeping with the 'objects' of the University which are written into the Charter; but some of the newer Professors are less than enthusiastic about sandwich courses and applied research. The situation is complicated by the likelihood that, in its selective funding of research, the UGC will place a greater weight on the proportion of Research Council income earned by each university or department than on the overall level of research income.

The final conclusion on the questionnaire is that it has proved extremely valuable. It has highlighted attitudes, particularly the attitudes of academic staff at the University of Bath, which were not previously obvious to the researcher, despite lengthy experience of the University in question. It is, for example, surprising that Bath academics do not favour vocational courses, yet the questionnaire statements on this point are not at all ambiguous. The findings prompted discussion of the issues with academic staff in every School of the University, and this process revealed a number of actual and potential problems. Action taken now might defuse some of these conflicts, although at least one has come to a head in the period which elapsed between carrying out the survey and

writing up the results.

Overall, this part of the research demonstrates the importance of interpreting survey results with care: two groups may have the same standard deviation but the heat generated by conflict within one group may be very much greater than in the other.

(ii) Chapter Fourteen

Chapter Fourteen describes the universities' environment in the mid 1980s. During the 1980s, important and strongly held views on goals have been expressed in such publications as the Leverhulme Report, the Jarratt Report, UGC circular letter 12/85, and the 1985 Green Paper. The conclusions drawn from these publications are:

1. Public confidence in universities' wisdom, and in their capacity to respond quickly and appropriately to changing needs, is diminishing. It is acknowledged by the Government (the universities' principal source of funding) that in many ways the universities are doing a useful job - but some important changes are called for, and resources are likely to be reduced.
2. The universities are being called upon to put their own house in order and to carry out the necessary changes themselves. They are being urged to introduce standard management techniques (to improve their efficiency and effectiveness), and they are being asked to state how they will respond to the nation's needs - in particular, to needs as perceived by the Government. The Secretary of State has asked the Vice-Chancellors to join him in establishing <u>shared</u> aims, (1) and to persuade the tax-payers that public money, when spent by the universities, is well spent. (2) Failure to provide an adequate response to these challenges will

constitute an open invitation for more direct intervention in university affairs by the Government. If the universities lack the wit to perceive the risks in the present situation they will surely deserve to have their autonomy reduced.

3. In practical terms, the universities' ability to act autonomously is likely to be limited. Major changes will cost money - possibly a great deal of money, depending on the assessment of the value of tenure. Consequently, if the universities decide to make significant changes in their activities, they will be forced to seek extra funds from the Government. The Government, in turn, is unlikely to finance change unless it approves of it. The universities therefore have two choices: to retain the status quo, and to suffer a heavy reduction in public funding accompanied by a further loss of public esteem; or to change as the Government wishes.

(iii) Chapter Fifteen

One of the aims of the thesis is to assist individuals, or groups, to analyse the operative goals of a particular institution, or the goals preferred by the universities' environment, at any given time. In order to carry out such an analysis it is necessary first to understand the ways in which society and the universities reach decisions about goals. Chapter Fifteen therefore examines the procedures by which university goals can be clarified by organisations. This involves consideration of three planning models: a system in which planning is carried out by autonomous institutions; a centralised system (the eastern European model); and the inevitable British compromise. The present British compromise is judged to be unsatisfactory in certain respects, and some suggestions for

improvement are put forward.

Making suggestions for improvements in planning techniques is relatively easy: the difficult task is to effect change. It is almost impossible to over-emphasise the resistance to change which exists within British universities: academic tenure, and the refusal to accept new developments unless they are clearly going to be an improvement, are but two aspects of this intertia. In the past it has sometimes proved easier to establish new universities than to adapt existing ones; bringing about any significant change constitutes a severe test of leadership.

It is precisely because of the recognition that a debate about goals may involve change that the debate is so seldom attempted. In the past, commentators have sometimes despaired of finding a solution to this problem, and have restricted themselves to diagnosing a state of 'organised anarchy' in universities. But there is in fact a solution: it is for academic staff to come to terms with their responsibilities and to give the question of purpose the same degree of attention which they devote to their academic specialisms.

(iv) Chapter Sixteen

Chapter Sixteen is essentially practical. It provides a method of inquiry by means of which the reader can familiarise himself with the attitudes towards university goals which exist at any given time. The method of inquiry is in two parts. The first part enables the reader to identify the goals which are preferred by groups in the universities' environment - groups such as the Government, the UGC or the CBI. The second part enables readers to analyse the operative goals of a specific university.

(v) Chapter Seventeen

Chapter Seventeen records the results of an application of the method of inquiry (described in Chapter Sixteen) to the University of Bath. The explicit and implicit goals of the University, as of mid 1985, are described. The information is then further analysed, and condensed, to draw up a draft mission statement for the University of Bath; this includes an analysis of the goals of one School (Management), and of one degree course within that School (the BSc in Business Administration).

The analysis of the goals of the degree course is particularly interesting in that it illustrates the point that the extent to which some goals have been achieved cannot be measured at all; the success in achieving certain other goals can only be assessed years after the course has finished.

Comments are made on the results obtained from the pilot test of the method of inquiry. The main conclusions are that the goals of the University of Bath are inadequately defined, and that this is a matter of some importance; the present operative goals are considered to be less appropriate than those which were inherited from the College of Advanced Technology and which were sketched out in the University's Charter. Overall, the method of inquiry is judged to have proved satisfactory for its purpose.

Further research which could be undertaken

Chapter Twelve, in Part Three, contained a number of suggestions for further research. The suggestions included the administration of the goals questionnaire to additional groups, and the design of longer scales relating to the liberal/vocational controversy or other similar issues. At

the end of Part Four it is now possible to suggest a number of other lines of inquiry which might prove fruitful. Since only a small amount of research has previously been undertaken into the goals of British universities, the field offers considerable scope.

The most obvious starting point is Chapter Ten. Each of the six controversial issues which have been identified in that chapter could usefully be investigated in depth, from a number of different directions. For example, a review could be undertaken of the skills which are required, in practice, by various professional groups, such as mechanical engineers, architects, or interpreters. The review could cover the skills which are likely to be required initially, and at intervals of years thereafter. It would then be possible to investigate whether a given degree course was designed to develop those skills, and if so whether it was successful. The researcher could also examine whether it was considered desirable, or possible, to broaden the course to include more 'liberal' elements.

Similar research could usefully be undertaken into the question of broad-based versus specialised degree courses. British higher education is notoriously specialised. Why is this considered desirable? Are the arguments which are used to justify specialised courses the true ones? (For example, is it perhaps easier, or more interesting, to teach a specialised course?) Do those who have taken a highly specialised course feel at a disadvantage in their employment? Or is the reverse true?

At various points in the thesis it has been noted that different authorities provide different estimates of the volume of research which is undertaken, both in the nation as a whole and in universities. What is the best way to measure the volume of research? How can we estimate the value of research? Is pure research cost-effective? Why do many academics feel that applied research is inferior? Is that opinion justified?

The question of teaching style for academic staff is one on which, as we have seen, there is almost complete unanimity at present. But what is happening in practice, in those areas where a lecturer could give a lead to his students? What are lecturers actually telling their students, in relation to, say, Marxism or imperialism or manpower planning? How do the students feel about such teaching? Do they press their lecturers to say what they really believe?

The results obtained from the administration of the questionnaire make it clear that Conservative MPs were strongly opposed to lecturers' adopting the role of social critic. But what is it precisely that this group of MPs objects to? Do they believe that most academics are left wing? Is that true? And even if it is true, does not democracy require a healthy exchange of views?

Other chapters of the thesis also offer opportunities for further research. It was observed in Chapter Two, in relation to the philosophy of higher education, that comparatively little work has been produced in that field. The reasons for this could be investigated. Is it because that area of thought is particularly challenging intellectually? Or is it because academic philosophers are hesitant about working in an area in which all their colleagues are intimately involved? If that is the case, are their fears justified, or would academic staff in general welcome a vigorous philosophical investigation of their professional activities?

Chapter Three offers even greater scope for research. Universities have been examined by a number of organisation theorists, but there are several topics which merit further examination. Why, for example, are universities, which are heavily involved in training students, so remarkably bad at training their own staff? Turning to the question of universities as an investment, figures have been produced from time to time indicating the rate of return for both individuals and society; these could be refined,

with advantage. Manpower planning is also a sensitive and controversial topic: sensitive because the British do not like being ordered about, and controversial because there are numerous examples of failure to apply the techniques successfully. Research could usefully be undertaken into the extent to which British university stakeholders are prepared to sacrifice individual liberty for efficiency in the use of public funds.

The chapter on the history of British universities suggests, as usual, that the history books leave much unsaid. Why did some universities, such as Leicester, shift from a local orientation to a national one? Was the change beneficial, and, if so, who were the chief beneficiaries? How much time did the Robbins Committee actually spend on discussing aims? Who drafted the paragraphs on this point? Were they discussed for long? Who suggested amendments, and were they significant? Later in the 1960s, what were the real motives behind the binary policy? Twenty years after the event, will the retired politicians and civil servants speak in less guarded terms than they would at the time?

Chapter Eight, analysing the goals of the stakeholders, makes it clear that few of the stakeholder groups have given formal consideration to the goals of British universities. But if the stakeholders were offered a catalogue of goals, such as that provided in Chapter Nine, which goals would they select as the most important?

The catalogue of goals itself could undoubtedly be further refined. This might best be done by applying it in practice - that is to say, by asking members of academic departments to extract from it, or to add to it, those goals which they consider relevant to the degree courses and other activities pursued in their departments. The resulting critical analysis would no doubt produce a number of irrelevant rewordings but also some useful insights and additions.

The Jarratt Report has demonstrated that the planning procedures in

some British universities are less than perfect. The criticisms which were made, however, were based on reports prepared under the leadership of a member of staff of each university concerned; it is therefore worth inquiring how much more would have been revealed had the investigations been conducted by more objective researchers.

The goals of the University of Bath could certainly be investigated in further depth, probably to the advantage of both individual Schools and the University as a whole. For example, attitudes to sandwich courses could be analysed. Why do some staff believe in them strongly and some staff oppose them? Are the arguments in support of sandwich courses fully justified in today's employment market? Do the staff who are against sandwich courses have satisfactory reasons for rejecting them? Or is it just that they dislike the extra work involved because it keeps them from their research?

Almost any of the above paragraphs and sentences could be broken down further to provide useful and interesting topics for research. Such topics could be investigated systematically if not necessarily scientifically, and the results would illuminate areas of higher education which have been unjustifiably neglected.

Recommendations

The following recommendations are made in the light of the findings of the research as a whole. To some extent these recommendations overlap; they are listed in order of importance, but that order does not necessarily constitute the sequence in which they should be implemented.

1. In future, the goals of universities should be discussed much more fully and directly than has been the case in the past.

This thesis has demonstrated that even some major stakeholder groups have not considered what the goals of universities should be; individuals may have views, but the groups themselves have not pronounced on the issue in any formal sense. That is not a satisfactory state of affairs, but to some extent it can be explained by the absence of suitable material on which a debate could be based. Given the information which has been assembled in this thesis, that excuse is no longer valid - which is not to say that the thesis constitutes an exhaustive treatment of the subject, merely that it provides a basis for discussion. It is therefore recommended that all major stakeholder groups should give full and formal consideration to the question of university goals as soon as possible. Furthermore, the debate should concentrate directly on goals. That is to say, it should be conducted not in terms of course content, for example, but in terms of the skills to be developed or the attitudes to be instilled through the teaching of a particular course. Numerous objections will no doubt be raised to the implementation of this recommendation, and it is worth considering the chief of them to see how convincing they are.

In the first place, the choice of goals is a value judgement, and the evidence suggests that in recent years many individuals have become increasingly uncomfortable with value judgements of all kinds. In the context of university goals, making a judgement may involve not only choosing a goal (which some people find difficult), but also defending that choice by means of rational argument (which some people find impossible). Science cannot help in such debates; reliance upon tradition may be considered embarrassing; and the use of intuition may be considered either

undignified or feeble-minded. All of these are reasons for not discussing goals overtly. The main argument on the other side is that if academic staff, in particular, do not choose and defend their goals, the Government shows every sign of being willing to do it for them.

Another reason why the discussion of goals is sometimes avoided, by academic staff particularly, is that it may lead to unwelcome conclusions. It may lead, for example, to the realisation that change is long overdue. This may lead, in turn, to the disturbing suggestion that Dr. X's course is no longer needed - but then what is to become of Dr. X? And next year, what is to become of the rest of the department? It is often tempting to remain silent rather than face these painful dilemmas; tempting, but scarcely honourable.

A third deterrent to the consideration of goals is the feeling which can be sensed in some quarters that to try to <u>do</u> something to a student is vaguely immoral or even indecent. The idea of moulding students' attitudes smacks of thought control, manipulation, the fascism of the right or the left. The evidence provided by the questionnaire demonstrates how strong is the view that students should be allowed to make up their own mind about controversial issues. It is scarcely suprising therefore that many academics feel uneasy about spelling out in detail, even amongst themselves, what changes they seek to effect in those they teach. But it can equally well be argued that degree courses will inevitably change students - and should not students be made fully aware of the changes which academic staff hope to bring about? If anything, there is surely a need to give students more detailed information about goals and objectives, to avoid misunderstandings and to minimise wastage.

Finally, for those who are determined not to discuss the matter, there is always the excuse that it is in any case impossible to obtain

agreement on goals and that the subject is therefore best ignored. Some commentators have argued that 'no single list of agreed university objectives can be drawn up unless it is couched in such general terms as to have no precise meaning.' (3) This difficulty is acknowledged by the Americans, who refer to it as the 'motherhood and apple pie' problem: in other words goal statements can deliberately be phrased in such generalised terms that no one will wish to disagree with them; they are therefore useless. However, it is hard to believe that these conceptual difficulties are more serious than other major obstacles which are daily tacked, and tackled successfully, in many areas of university life. The idea that differences of opinion within a university cannot be resolved by rational discussion does not say much for the intellectual powers of the staff, and it is therefore an idea which universities might do well to avoid propagating.

In short, there are no satisfactory reasons why this first recommendation should not be implemented immediately.

2. <u>More research into university goals should be undertaken as a matter of urgency</u>.

An earlier section of this chapter has outlined some of the more obvious possibilities for research into the goals of British universities. Given the fact that the universities are (at the time of writing) fast approaching yet another financial crisis, and given the fact that the time taken to organise and complete any major research is measured in years, there is an obvious need to act promptly on this recommendation. This is not to say, of course, that the need for more research constitutes an excuse for doing nothing in the meantime.

It should be noted in this context that the financial crisis is itself

generated by a difference of opinion about goals; those who seek to avert the crisis would do well to consider that point.

3. Every university should be obliged by law to produce a mission statement, to be agreed with the UGC. The statement should include a list of goals for each department and for each degree course, and should state the performance indicators which will be used to measure success.

The suggestion that this recommendation should be imposed by law is made because it is considered unlikely that it will be put into effect otherwise. Essentially the same recommendation (apart from the phrase about performance indicators) was made by the House of Commons committee on education in 1980, (4) and again in volume 9 of the Leverhulme Report; (5) no action has been taken as a consequence.

British universities have a remarkable history of refusing to examine their reasons for existence. In 1973, in their famous text on Planning and management in universities, Fielden and Lockwood stated that: 'Ideally, we might have recommended a system in which the first task would be to set and obtain agreement upon objectives. We decided against that approach because we believe most universities would not be prepared to implement it at this time.' (6) In 1978 Norris quoted that statement in his book The effective university and asked, 'Has the time now arrived for setting and obtaining agreement upon objectives; for the setting of priorities for different research and teaching projects in each institution and monitoring their performance through research publications, patents and graduates entering industry and commerce etc.?' (7) Clearly Norris was right to ask a question rather than to make an affirmative statement, because the time had definitely not arrived in 1978 any more

than in 1973. In 1985, therefore, anyone who believes that universities will adopt this recommendation willingly is guilty of unjustified optimism.

4. Induction courses for new lecturers should provide an introduction to the theory and practice of university goals.

Since the goals of a university are fundamental to its activities, it follows that new lecturers should be acquainted with the explicit or implicit goals of the institution which they have joined as soon as possible. This process will become very much easier if recommendation 3 is implemented. A general grounding in the theory of goals is also desirable.

5. A catalogue of goals should be made available to all academic staff in universities, and should become a basic tool of their trade, on a par with dictionaries and log tables.

It would be appropriate for every member of staff to review the aims and objectives of his own teaching and research at regular intervals - perhaps annually. A catalogue of goals will also be needed whenever the content of a degree course is formally reviewed, or a new course is contemplated. Academic staff should be encouraged to enlarge and refine the catalogue whenever possible: one member of staff in each department should be appointed to collate all such suggestions.

6. The Committee of Vice-Chancellors and Principals should set up a working party to devise a manual of good practice in relation to goals.

In 1984/85 the CVCP set up a committee, under the chairmanship of Professor P.A. Reynolds, to examine ways and means of maintaining academic standards. Much the same process could be undertaken, with advantage, in relation to goals.

The CVCP has recently begun to pay greater attention to public relations. In that context, the value of a clearly defined set of goals for each institution, together with convincing proof that they were being achieved in a cost-effective manner, can scarcely be over-estimated. In the eyes of knowledgeable observers, the absence of such statements of intent, with accompanying proof, can only be seen as a mark of incompetence or as an admission of failure.

Final conclusion

When it comes to accepting carefully considered recommendations, universities have a poor record. Witness, for example, the fate of the recommendation in the Robbins Report that expansion should be linked to a broadening of the content of degree courses. Or, as another example, take the question of staff development. Ten years ago an attempt was made to persuade universities to improve their arrangements for the training of staff; (8) but in 1975 the Jarratt Committee was still complaining that staff development in universities was neglected (paragraph 5.5). History therefore suggests that the recommendations listed in this chapter, which come from a much less prestigious source than those quoted above, will also be largely ignored. If so, does it matter?

The evidence, again, suggests that it does matter. The researcher's final conclusion is that the failure of British universities to determine their goals with precision is intellectually unacceptable; more to the point, it is rapidly becoming politically disadvantageous. Universities would therefore be well advised to clarify what they are trying to do, to set out their goals in writing, and, where possible, to measure how effective they are in achieving them; such steps should be taken for the most cynical reasons of self-preservation if for no other. Unless universities take this action they will increasingly leave themselves exposed to their enemies and will deny their friends the means with which to defend them.

NOTES ON CHAPTER EIGHTEEN

1. Joseph (1985), page 2.
2. Ibid., page 10.
3. Dunworth and Cook (1975).
4. House of Commons (1980).
5. Leverhulme Report, volume 9 (The structure and governance of higher education), pages 200 and 201.
6. Fielden and Lockwood (1973), page 113.
7. Norris (1978), page 50.
8. Piper and Glatter (1977).

APPENDICES

APPENDIX ONE

Listed in this appendix are all those individuals who kindly agreed to be interviewed about various aspects of this research. Many other people, who are not listed, were consulted relatively informally.

University of Bath

Professor J.R. Quayle - Vice-Chancellor

Mr. R.M. Mawditt - Secretary and Registrar

Dr. B.J.R. Taylor - Planning Officer

Mr. T. Adam - Chairman of Academic Assembly 1982-85

Mr. J.J. Stroudley - Students' Union President 1983/84

Mr. D. Honebon - Senior Careers Officer (now retired)

Mr. C.S. O Cathain

Dr. S.J.L. Wright

Dr. R. England

Dr. W.J. Williams

Dr. N.D.C. Harris

Mr. A.R. Daniels

Mr. P.J. McMahon

Mr. J.A. Styles

Mr. A.J. McLean

Mr. H. Reiter

Mr. A.H.J. Bishop

Mr. D.W. Head

Mr. J.I. Harris

Dr. W.C. Clark

Dr. D.B.P. Sims

The Comparator University

Vice-Chancellor

Registrar

Appointments Officer

Chairman of the Local AUT

President of the Students' Union

Educational Testing Service, Princeton, N.J., USA

Nancy Beck (Program Director, Institutional Research)

Eldon Park (Director, College and University Programs)

Members of Parliament

Giles Radice, MP

Chris Patten, MP

Department of Education and Science

Dr. V.J. Delany (retired)

University Grants Committee

Sir Peter Swinnerton-Dyer

APPENDIX TWO

Set out on the following three pages is an example of the letter of inquiry which was sent to the Registrars of all British universities in 1981. A covering letter from the then Secretary and Registrar of the University of Bath, Mr. G.S. Horner, was provided in each case.

Claverton Down
Bath BA2 7AY

Telephone Bath 61244
(STD code 0225)
Telex 449097

G S Horner
Secretary and Registrar

22 December 1981

Dear Davey,

I am enclosing with this letter a request from a senior member of my staff for some information which I think you will be able to supply relatively easily. Despite all the trials and tribulations of the present time, I hope you will be able to find a moment to assist Mr. Allen with his request, as the project seems to me to be one worth encouraging.

Yours sincerely,

Gordon Horner.

G.S. HORNER

Secretary & Registrar

University of Bath

397

Claverton Down
Bath BA2 7AY

22 December 1981

Telephone Bath 61244
(STD code 0225)
Telex 449097

G S Horner
Secretary and Registrar

I am currently undertaking some research into the goals of British universities; a brief outline of the project is attached.

In this connection I would be very grateful if you would send me a copy of any formal statements of the overall goals of your institution. I have in mind, for example, the statements of aims or purposes of the university which are sometimes included in Charters, or perhaps in your prospectus or submissions to the UGC. I am not interested in highly specific lists of objectives relating to particular courses. Nor do I wish you to go to the trouble of searching through committee papers etc. The statements which will be of value to me will either be readily to hand, or perhaps, in the case of some institutions, may never have been drawn up at all. In short, I am looking for the British equivalents of what the Americans call the university's 'mission statement', though I suspect that in the case of most British institutions the statement will be very much shorter than its American counterpart.

With thanks for your help.

Yours sincerely,

M.D. ALLEN

Assistant Secretary

MICHAEL ALLEN : Ph.D. research project

THE GOALS OF BRITISH UNIVERSITIES

The aims of the research are (a) to establish what the goals of British universities should be, in the opinion of certain groups, and (b) to determine whether the values attached to the goals by the various groups differ significantly. The implications of the findings will then be considered.

The research will be carried out in three stages. The first stage will be to draw up a list of possible goals for universities. One source of such ideas is the body of published work on the philosophy of higher education. Other sources are the formal statements of the aims and purposes of universities which are issued by the institutions themselves in charters, prospectuses, etc. Finally, leading representatives of the groups to be surveyed (see below) will also be asked, in a series of structured interviews, to state what in their view the functions of universities should be.

In the second stage, about ten of what appear to be the most important goals for universities will be selected from the data collected so far. A questionnaire will then be constructed in which respondents will be asked to state the degree of importance which they attach to each goal on a five-point scale. The questionnaire will then be administered to samples of a number of separate groups, such as academic staff, current students, employers, and Members of Parliament.

In the third stage, any significant differences of opinion between the groups will be calculated. The results of the survey on goals will then be discussed in a second series of structured interviews with the same national representatives as were seen in stage one. Finally, the implications of the research, for both national higher education policy and for the internal planning of individual universities, will be considered. It is hoped that the project will form a useful contribution to the continuing discussion on the role of universities in this country.

Supervisors: Professor K. Austwick
Professor R.E. Thomas

APPENDIX THREE

Set out below is an example of the letter of inquiry which was sent to the Chief Administrative Officers of a number of polytechnics in 1982.

18 January 1982

I am currently undertaking some research into the goals of British universities; a brief outline of the project is attached.

Although my research is primarily concerned with universities, the existing practices in polytechnics are clearly highly relevant. I would therefore be very interested to receive a copy of any formal statements of the overall goals of your institution. I am not interested in highly specific lists of objectives relating to particular courses. Nor do I wish you to go to the trouble of searching through committee papers etc. The statements which will be of value to me will either be readily to hand, or perhaps, in the case of some institutions, may never have been drawn up at all. In short, I am looking for the British equivalents of what the Americans call a 'mission statement', though I suspect that in the case of most British institutions of higher education the statement will be very much shorter than its American counterpart.

With thanks for your help.

Yours sincerely,

M.D. ALLEN
Assistant Secretary

APPENDIX FOUR

Set out below is an example of the letter of inquiry which was sent to a number of American universities in 1982.

16 February 1982

I am currently undertaking some research into the goals of British universities; a brief outline of the project is attached.

For purposes of comparison I would be very grateful if you would send me a copy of any formal statements of the overall goals of your institution, in short a copy of what is often called the university's 'mission statement'.

I am fairly familiar with much of the American work in this field and last summer I spent a day in the Educational Testing Service at Princeton, which seems to be an important centre of goals research in the USA. However, I would be very glad to receive any general comments or advice which you may feel able to offer.

Yours sincerely,

M.D. ALLEN
Assistant Secretary

APPENDIX FIVE

Set out below is an example of a kind of letter of inquiry which was sent to representatives of all the principal stakeholder group.

7 February 1984

Mr. M.O. Bury, OBE,
Director of Corporate Affairs,
Confederation of British Industry,
Centre Point,
103, New Oxford Street,
London WC1A 1DU

Dear Mr. Bury,

I am currently involved in a research project which is seeking to identify any important differences of opinion between various groups as to what the universities should or should not be doing. I would therefore be very glad if you would let me have a copy of any official statements or publications issued by the CBI which are directly concerned with the aims and objectives of universities. I have in mind the kind of concise statement of aims which was contained in the Robbins Report. If you have not produced any such documents (and very few organisations have) a nil return would be useful.

Yours sincerely,

M.D. ALLEN
Assistant Secretary

APPENDIX SIX

A copy of the questionnaire which is described in Part Three is provided on the next four pages. The version which was distributed to respondents was in the form of a single sheet of A5 paper, folded to A4, with printing on all four sides. The instructions for returning the completed questionnaire, at the end, varied according to the group concerned.

TEACHING AND RESEARCH IN UNIVERSITIES

TEACHING AND RESEARCH IN UNIVERSITIES

This questionnaire consists of 24 statements. Please read each one and indicate your response to it by putting a tick in the appropriate box to the right. You will see that there are five possible responses, ranging from 'strongly disagree' to 'strongly agree'. If you are not able to say whether you agree or disagree, please tick the 'mixed feelings' box in the middle. Please give a response to all the statements. Don't spend too long over your answers - just give your immediate reaction.

Please tick one box

	STRONGLY DISAGREE	DISAGREE	MIXED FEELINGS	AGREE	STRONGLY AGREE
1. A university degree course should prepare a student for a specific career.					
2. Students who are taking science degrees should also be taught about the arts.					
3. A lecturer should adopt a neutral position in presenting both sides of every argument.					
4. Lecturers should refrain from taking sides outside the university on issues of public importance.					
5. A university lecturer should try to discover new facts about his subject through research.					
6. Lecturers should use their knowledge to help solve the problems of industry and commerce.					

Please tick one box

	STRONGLY DISAGREE	DISAGREE	MIXED FEELINGS	AGREE	STRONGLY AGREE
7. The main aim of university degree courses should be to produce well-rounded human beings.					
8. The best degree courses are those which study one main subject in great detail.					
9. A lecturer who has strong views on religion or politics should try to convert students to the cause he believes in.					
10. Lecturers should be prepared to stand up and be counted on issues of public importance.					
11. The discovery of new knowledge through research should be a vital aspect of a university's work.					
12. Lecturers should research into any subject which interests them even if it has no obvious practical value.					
13. A university degree course should be designed to equip you for life in general.					
14. A degree course which covers a number of subjects in moderate depth is likely to be a waste of time.					
15. A lecturer should always advise students as to which side of a controversial issue they should support.					
16. Lecturers should not become involved in public controversy.					

Please tick one box

	STRONGLY DISAGREE	DISAGREE	MIXED FEELINGS	AGREE	STRONGLY AGREE
17. A university lecturer can be very good at his job without discovering any new facts about his subject at all.					
18. Scientists in universities should not worry about the practical problems of industry.					
19. The most valuable kind of research is that which produces direct benefits, such as a cure for a disease.					
20. Universities should not be concerned with research.					
21. Lecturers should try to change society through direct involvement in public affairs.					
22. A lecturer should allow students to form their own conclusions.					
23. Students who are taking arts degrees should also be taught about science.					
24. University degree courses should be designed to meet the needs of employers.					

Thank you very much for completing this questionnaire. Please return it in the envelope provided, via the internal mail, to:

Michael Allen
Assistant Secretary
4 West 3.5

APPENDIX SEVEN

Set out below is an example of the kind of covering letter which was sent out with the questionnaire. The wording of the letter varied slightly according the group concerned; for example, Bath students could return the completed questionnaire through the internal mail, while Comparator students had to post their response in a pre-paid envelope.

The letter below is the one sent to Bath students.

March 1984

In 1981 the Government introduced a three-year programme of cuts in its expenditure on the universities. The cuts have led to considerable public debate about the need for universities and about what they should be trying to achieve.

Enclosed with this letter is a questionnaire. The aim of the questionnaire is to obtain a cross-section of opinions as to what the universities should or should not be doing, and to find out whether there are any important differences of opinion between various groups. This work is being carried out as part of a research project here at the University of Bath.

I would be very grateful if you would fill in the questionnaire and return it to me in the enclosed envelope. Just drop it into the internal mail tray in your School Office. It will only take a few minutes to complete the questionnaire, and all individual replies will be entirely confidential.

If everyone who receives this letter is kind enough to co-operate, the results of the research will be of value in the continuing debate about the purpose of British universities. But the results will not give a true picture unless all those who are asked to fill in the questionnaire actually do so.

Please do it now - it won't take long.

Yours sincerely,

Michael Allen
Assistant Secretary

APPENDIX EIGHT

Set out below is an example of the kind of reminder letter which was sent out to those who did not return a completed questionnaire within a reasonable time. As with the original covering letter, the wording varied slightly from group to group. The letter below is that sent to Bath students.

March 1984

I recently wrote to you asking if you would be kind enough to complete a short questionnaire on teaching and research in universities. I have not yet received a completed questionnaire from you, but it may have crossed in the post with this letter, and if so I would like to thank you most warmly for your co-operation.

In case the first copy of the questionnaire did not reach you, or has been misplaced, I am enclosing a second copy with this letter. I would be very grateful if you would fill it in promptly and return it to me in the enclosed envelope. In a research project of this kind it is most important to obtain replies from all those who have been approached, whether they are experts on universities or not, and I hope you will be able to spare a few minutes. All individual replies will be entirely confidential.

When you have completed the questionnaire, please put the envelope in the internal mail tray in your School office.

Yours sincerely,

Michael Allen
Assistant Secretary

APPENDIX NINE

The following performance indicators are used regularly in the University of Bath. The date in parentheses shows the first year of use. This list was drawn up by Dr. B.J.R. Taylor, Planning Officer of the University of Bath, in July 1985. The comments which follow the list were also written by Dr. Taylor.

(a) INTERNAL PERFORMANCE INDICATORS

Market share of undergraduate applications (1971)

Graduation rates and classes of degree (Intermittently since 1974)

Attraction of masters and doctoral students

Comparative tables of research students as a proportion of total student load by subject category for all GB universities have been produced annually. (1975)

Comparative tables of research students per academic by subject category have been produced annually. (1978)

(36 comparative tables)

Success rate of higher degrees and time taken (1983)

Information for other universities was not available until 1982/83, hence the basis for performance evaluation was not very useful prior to that date.

Attraction of research funds

Comparative tables for all GB universities by subject category have been used as follows:

Research expenditure as a percentage of gross expenditure. (1975)

Research and contract expenditure per academic. (1975)

Expenditure of income for services rendered per academic. (1975)

Research Council income per academic. (1985)

(72 comparative tables)

Teaching quality

No measure made.

(b) EXTERNAL PERFORMANCE INDICATORS

Acceptability of graduates and postgraduates in employment

Monitored comparatively by the Careers Office annually.

First destinations of graduates and postgraduates

Monitored comparatively by the Careers Office annually.

Reputation judged by external reviews

The views of external examiners are sought and noted.

Publications by staff

Publications are listed in the Annual Report; there are also internal surveys from time to time but there are no reliable external comparators for peer review.

Citations

Not reviewed centrally.

Patents, inventions and consultancies

Some have been included in the Annual Report but they have not been systematically surveyed until 1983/84. There are no reliable external comparators for peer review.

Memberships, prizes, medals of learned societies

These are reported in the Annual Report, but they have not been systematically surveyed until 1983/84, again because there are no reliable external comparators for peer review.

Papers at conferences

Again, listed in the Annual Report but no satisfactory external comparators for peer review.

(c) OPERATING PERFORMANCE INDICATORS

Unit costs (1965)

Comparative tables for all universities have been produced annually for every reported expenditure heading.

(254 tables annually)

Summary tables of unit costs (1965)

Summary tables of unit costs for all GB universities are produced annually for comparative purposes.

(110 tables annually)

Comparative staff-student ratios (1971)

Produced annually for all universities by subject categories.

(18 tables)

Comparative staff-research student ratios (1971)

Produced annually for all universities by subject categories.

(18 tables)

Class sizes

A School prerogative and not monitored - resource allocation methods are not tied to class sizes and a School can gain no advantage by fragmenting groups because no additional resources are allocated.

Course options available

The same comment applies.

Staff workloads

The same comment applies.

Library stock

Comparative tables for all universities have provided a peer review method until 1982/83. Since then the comparator information has not been collected by the UGC.

Computing availability/performance

This has not been monitored centrally although detailed reports from the Regional Network are produced regularly.

In addition to those 500+ comparative tabulations listed above, many other charts and tabulations of performance evaluation are produced annually.

The University of Bath has become recognised as being in the forefront of performance evaluation, not only in Britain but internationally. The methods used have been developed by the Planning Officer and are the focus of half a dozen national seminars and one or two international seminars annually. The methodology has been published in technical and institutional research journals and has been widely adopted.

Over the past six months more than half of GB universities have sought specific help and performance evaluations, particularly in respect of unit cost analyses. The Commonwealth Tertiary Education Commission in Canberra is presently adopting the methodology for the budgetary analyses of Australian Universities and there is a strong likelihood that we will be asked to extend it to all higher education institutions in Australia. In May, 1985, the methods were described in Portland, Oregon, and it is possible that they will be adopted at State level for funding higher education.

There is always room for improvement and recruitment monitoring is likely to play an increasingly important role in the destiny of universities.

Methods are currently being designed by the Planning Officer to give accurate forecasts of the recruitment potential of degree courses balanced against student entry quality as judged by 'A' level GCE result. The methodology was described in The Times Higher Education Supplement in September 1984 and it has attracted encouraging responses.

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